HEIVÄL CONSULTING

Study of Environmental Responsibility of Small and Medium Enterprises

In scope of the LIFE Project „Baltic pilot cases on reduction of emissions by substitution of hazardous chemicals and resource efficiency“ (LIFE Fit for REACH, Nr. LIFE14 ENV/LV/000174)

Methodological Framework

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Study of environmental responsibility of small and medium enterprises (SME) is conducted of in scope of the project ‘Baltic pilot cases on reduction of emissions by substitution of hazardous chemicals and recourse efficiency’, **Fit for REACH, No.LIFE14ENV/LV/000174**, which is financially supported by the European Commission.

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INTRODUCTION

Aim of the survey

This survey is created in scope of the LIFE project 'Baltic pilot cases on reduction of emissions by substitution of hazardous chemicals and resourcene efficiency' (LIFE Fit for REACH), Nr. LIFE14 ENV/LV/000174).

New knowledge and innovation in technology, management, and public policy are challenging organizations to make new choices in the way that their operations, products, services, and activities impact the earth, people, and economies. Businesses are responding, moving beyond their basic responsibilities and going further into a strategic opportunity space. Still, there are barriers that companies face, including lack of knowledge as well as limited recources.

Most of the initiatives that are created for incorporating environmental actions into production processes are aimed at large companies. On the other hand, large companies make up only a small part of all of the enterprises. Therefore the focus of attention in shaping enterprize policy in the European Union is on small and medium sized enterprises.

The main purpose of the project is understanding country specifics of environmental responsibility including hazardous substances area in SMEs in Estonia, Latvia and Lithuania and presentation of the results of the Project in October 2018.

Definition of terms and abbreviations used

Abbreviations:

- ACCA - The Association of Chartered Certified Accountants
- CER - Corporate environmental responsibility
- CSR – Corporate social responsibility
- EU – European Union
- FSB – Federation of Small Businesses
- GRI - Global Reporting Initiative
- ISO - the International Organization for Standardisation
- REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Text with EEA relevance)
- SME(s) – Small and medium sized enterprises

Terms:

- Hazardous substances refer to substances, which are classified as toxic or harmful to human health or environment, or very persistent and very bioaccumulative.
- Hazardous waste is a waste with properties that make it potentially dangerous or harmful to human health or the environment.
- Sustainability is the idea according to which goods and services should be produced in ways that do not use irreplaceable resources and that do not damage the environment.

THEORETICAL BACKGROUND

The environmental role of small and medium sized enterprises

European Commission defines small and medium enterprises - SMEs - as enterprises that have less than 250 employees and an annual turnover of no more than €50 million or annual balance sheet of €43 million[1].

Company categories by European Commission

Company category	Staff headcount	Turnover	or	Balance sheet total
Medium-sized	< 250	≤ € 50 m		≤ € 43 m
Small	< 50	≤ € 10 m		≤ € 10 m
Micro	< 10	≤ € 2 m		≤ € 2 m

The focus of attention in the European Union in shaping enterprise policy is on SMEs. The European Commission considers SMEs as key to ensuring innovation, economic growth, social integration and job creation in the EU. [2]

What makes SMEs different is that they are:

- managed in part or in whole by their owner(s),
- independent, rather than a subsidiary or franchise,
- informal, without bureaucratic procedures and structures,
- dealing with day-to-day cash flow challenges and responding to short-term problems,
- characterised by multi-tasking and flexibility,
- characterised by the importance of personal relationships. [3]

SMEs are a very important part of the economy, as they represent around 99% of all enterprises and employ an increasing number of persons[4]. The environmental impact of SMEs' is estimated to range from 60% to 70% of all industrial pollution[5]. Therefore, although the individual impacts of the SMEs are relatively small in comparison to those of large enterprises, their cumulative environmental impact is large.

The majority of initiatives created to incorporate environmental an social issues into business processes are mostly aimed at large corporations and multinationals[6]. Despite the importance of SMEs for the world economy and their impact social as well as environmental issues, they have been relatively marginalised in the debate on sustainability and corporate social responsibility, and also relatively ignored in academic research on CSR and high-level policy initiatives. However, there are signs that this is now changing, and the role of SMEs' and the potential benefits from sustainable business are being more actively acknowledged and promoted.[7]

[1] What is an SME? European Commission. http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en (15.03.2018)

[2] Eurostat. (2015). Statistics on Small and Medium Sized Enterprises. http://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_small_and_medium-sized_enterprises (15.03.2018)

[3] Spence, L. J. W (2017). Primer: Business Sustainability for SMEs. Network Business Sustainability. https://nbs.net/p/primer-business-sustainability-for-smes-3b61b174-dc3d-4fa4-8a89-7aab294c2821 (14.03.2018)

[4] *supra* note 2

[5] The Association of Chartered Certified Accountants. (2012). Embedding Sustainability in SMes. http://www.accaglobal.com/content/dam/acca/global/PDF-technical/small-business/pol-tp-esis-v1.pdf (15.03.2018)

[6] Bonner, James. (2012). SMEs and Evironmental/social Impacts. https://blogs.accaglobal.com/2012/09/27/smes-and-environmentalsocial-impacts/ (15.03.2018)

[7] *supra* note 5

Management of hazardous substances

Preventing the use and substitution of hazardous substances

Sources and effects of hazardous substances

Hazardous substances originate from different sources:

- from industrial activities due to, for example, occurrence of hazardous substances in raw materials used during the production processes or unintentional "production" (byproducts),
- from households, small scale services (car washing, laundries and dry cleaners, etc.), public buildings (hospitals, schools, office buildings) due to occurrence of hazardous substances in everyday products that are used in business operations, for large scale cleaning activities or building materials that emit hazardous substances,
- from run-off from agricultural areas, if the hazardous substances are applied as ingredients in plant protection products,
- from run-off from urban surfaces like streets, car parks, roofs,
- from sources far away after long range transport and atmospheric deposition.[8]

The universal use of hazardous substances including substances of very high concern and equivalent in industrial processes and industrial and consumer products may lead to human and environmental exposure. Furthermore, the presence of hazardous substances in products may cause problems through exposure of humans and the environment during the service life as well as in relation to waste management and recycling once the products become waste. [9]

Substitution of hazardous substances

Although the effects of hazardous substances are known, they are still in use. Many emitters downstream in the supply chain are very small companies, that use substances and mixtures in production processes. In addition to technical and financial reasons for not changing the composition of products, there is also the issue of lacking knowledge and environmental awareness in companies. Small and medium sized enterprises generally have less resources and personnel capacities as well as competences to invest in substitution. Furthermore, they are often unaware of what the substances contain and often cannot afford complex authorization procedures and lack the knowledge, skills and funds to find alternative substances. [10]

The most effective way of preventing the entry of hazardous substances into the environment is averting the pollution at its emission sources and replacing the substances with safer alternatives/substititutes[11]. Different types of policy means are used to encourage and facilitate substitution, from the mandatory restrictions of certain substances in certain applications, through the development of tools for chemical risk management and for the assessment of potential alternatives, to providing support for research, development and innovation. The substitution of hazardous substances is horizontal to many policies dealing with workers' health and safety, products' safety and the environment. Moreover, a range of different measures at local, national and international level promote the substitution of hazardous chemicals. These can be divided into eight different categories: command and control legislation, economic instruments, co-regulation, information-based instruments, civic and self-regulation, support and capacity building, enforcement; monitoring.[12]

In the Baltic States voluntary agreements in the industry are uncommon and the main driving force behind any substitution is the legal obligations. There are several reasons why substitution is slow or seldom takes place in the Baltic States and in fact also in other EU countries, among others:

- The reformulation of mixtures and the redesign of articles regarding the chemical composition may result in changes of the product quality, which may not be acceptable for the customers - economic risk.
- The substitution may require changes in the production technologies, e.g. if the operating mode of machines (such as fast-running printing machines) needs to be adjusted to a specific chemical mixture - economic and organisational risk.
- The search and testing of alternatives requires environmental and technical expertise and financial investments in the product development - economic risk, lack of expertise.

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8 LIFE fit for REACH. (2014). Baltic Pilot Cases on Reduction of Emissions by Substitution of Hazardous Chemicals.

9 Cambony, M. (2017). European Commission. Study for the Strategy For a Non-toxic Environment of the 7th EAP. Sub-study a: Substitution, Including Grouping of Chemicals & Measures to Support Substitution. http://ec.europa.eu/environment/chemicals/non-toxic/pdf/Sub-study%20a%20substitution%20grouping%20NTE%20final.pdf (21.03.2018)

10 *supra* note 8

11 *Ibid*

12 *supra* note 9

- The use of alternative substances or technologies may call for different work practices - organisational inertia.
- The alternatives may be more expensive than the substances to be substituted – costs.[13]

Hazardous waste

Hazardous waste is a waste with properties that make it potentially dangerous or harmful to human health or the environment. Hazardous wastes can be liquids, solids, or contained gases. They can be the by-products of manufacturing processes, discarded used materials, or discarded unused commercial products, such as cleaning fluids (solvents) or pesticides. Hazardous wastes pose a greater risk to the environment and human health than non hazardous wastes and thus require a stricter control regime.[14]

Arisings of hazardous waste are relatively low compared to the total generated waste but hazardous waste is potentially very damaging to both the environment and also to human health.[15] In 2012, hazardous waste represented close to 4 % of the 2.5 billion tonnes of waste generated in the EU-28. The largest volumes of hazardous waste are generated by the waste management, construction, and mining and quarrying sectors, as well as households. Bulgaria and Estonia generated the highest amounts of hazardous waste in Europe, due to their intensive mining and quarrying, and shale oil sectors, respectively. [16]

[13] *supra* note 8

[14] http://www.dtsc.ca.gov/HazardousWaste/upload/HWMP_DefiningHW111.pdf (15.03.2018)

[15] Hazardous Waste. Eurostat. http://ec.europa.eu/eurostat/web/waste/key-waste-streams/hazardous-waste (15.03.2018)

[16] European Environment Agency. (2016) Prevention of hazardous waste in Europe — the status in 2015. EEA Report, No 35/2016. https://www.eea.europa.eu/publications/waste-prevention-in-europe/file (15.03.2018)

Sustainable development

The general goal of sustainable development is to meet the needs of the present without compromising the ability of future generations to meet their own needs[17]. Many of the challenges facing humankind, such as climate change, water scarcity, inequality and hunger, can only be resolved at a global level and by promoting sustainable development[18].

At the environmental level, sustainability prevents nature from being used as an inexhaustible source of resources and ensures its protection and rational use. Aspects such as environmental conservation, investment in renewable energies, saving water, supporting sustainable mobility, and innovation in sustainable construction and architecture, contribute to achieving this environmental sustainability on several fronts.[19]

At the social level, sustainability can foster the development of people, communities and cultures to help achieve reasonable and fairly-distributed quality of life, healthcare and education across the globe. The fight for gender equality, especially in developing countries, is another aspect which in coming years will form the basis of social sustainability.[20]

Sustainability focuses on equal economic growth, that generates wealth for all, without harming the environment.
Investment and an equal distribution of the economic resources will strengthen the other pillars of sustainability for a complete development.[21]

To be sustainable, companies must do five things: foremost, they must operate responsibly in alignment with universal principles and take actions that support the society around them. Furthermore, to push sustainability deep into the corporate DNA, companies must commit at the highest level, report annually on their efforts, and engage locally where they have a presence.[22]

GRI Reporting Framework for sustainable development

Because of the fact that the magnitude of the risks and threats to our collective sustainability is high and, furthermore, the wideness of choice and opportunities is increasing, transparency about economic, environmental, and social impacts has become a fundamental component in effective stakeholder relations, investment decisions, and other market relations. For companies to communicate clearly and openly about sustainability, a globally shared framework of concepts, consistent language, and metrics was required. It is the Global Reporting Initiative's (GRI) mission to fulfil this need by providing a trusted and credible framework for sustainability reporting that can be used by organizations of any size, sector, or location. Transparency about the sustainability of organizational activities is of interest to a diverse range of stakeholders, including business, labor, non-governmental organizations, investors, accountancy, and others.[23]

The GRI Reporting Framework is intended to serve as a generally accepted framework for reporting on an organization's economic, environmental, and social performance. It is designed for use by organizations of any size, sector, or location. It takes into account the practical considerations faced by a diverse range of organizations – from small enterprises to those with extensive and geographically dispersed operations. The GRI Reporting Framework contains general and sector-specific content that has been agreed upon by a wide range of stakeholders around the world to be generally applicable for reporting an organization's sustainability performance.[24]

All organizations (private, public, or non-profit) are encouraged to report against the Guidelines whether they are beginners or experienced reporters, and regardless of their size, sector, or location. Reporting can take

[17] GRI. Sustainability Reporting Guidelines. (2011) https://www.globalreporting.org/resourcelibrary/G3.1-Guidelines-Incl-Technical-Protocol.pdf (15.03.2018)
[18] Acciona. Sustainable Development. https://www.acciona.com/sustainable-development/ (15.03.2018)
[19] *Ibid*
[20] *Ibid*
[21] *Ibid*
[22] United Nations Global Compact. (2015). Guide to Corporate Sustainability. Shaping a Sustainable Future. https://www.unglobalcompact.org/docs/publications/UN_Global_Compact_Guide_to_Corporate_Sustainability.pdf (15.03.2018)
[23] *supra* note 17
[24] *Ibid*

various forms, including web or print, stand alone or combined with annual or financial reports. Sustainability should fit into a broader process for setting organizational strategy, implementing action plans, and assessing outcomes. Reporting enables a robust assessment of the organization's performance, and can support continuous improvement in performance over time. It also serves as a tool for engaging with stakeholders and securing useful input to organizational processes.[25]

United Nations Global Compact corporate sustainability initiative

The Global Compact is the world's largest global corporate sustainability initiative, with over 8,000 companies and 4,000 non-business participants based in over 160 countries. The initiative's mission is for businesses to be able to commit to sustainability by taking shared responsibility for achieving a better world. It calls for companies to align strategies and operations with universal principles on human rights, labour, environment and anti-corruption, and take actions that advance societal goals.[26]

The UN Global Compact supports companies to:
1. Do business responsibly by aligning their strategies and operations with Ten Principles on human rights, labour, environment and anti-corruption; and
2. Take strategic actions to advance broader societal goals, such as the UN Sustainable Development Goals, with an emphasis on collaboration and innovation.[27]

The Ten Principles of the UN Global Compact

By incorporating the Ten Principles of the UN Global Compact into strategies, policies and procedures, and establishing a culture of integrity, companies are not only upholding their basic responsibilities to people and planet, but also setting the stage for long-term success. The Ten Principles of the United Nations Global Compact are derived from: the Universal Declaration of Human Rights, the International Labour Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nations Convention Against Corruption.[28]

Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and

Principle 2: make sure that they are not complicit in human rights abuses.

Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: the elimination of all forms of forced and compulsory labour;

Principle 5: the effective abolition of child labour; and

Principle 6: the elimination of discrimination in respect of employment and occupation.

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: undertake initiatives to promote greater environmental responsibility; and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Anti-Corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.[29]

Corporate social and environmental responsibility

Corporate social responsibility (CSR) is a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment – therefore they integrate social as well as environmental concerns into their business operations and also their interaction with the stakeholders. Corporate social responsibility involves not only fulfilling legal expectations but going beyond compliance and investing 'more' into human capital, the environment and the relations with stakeholders.[30] Corporate environmental responsibility (CER) is

[25] *supra* note 17

[26] *supra* note 22

[27] *Ibid*

[28] *Ibid*

[29] *Ibid*

[30] European Commission. (2001). Promoting a European Framework for Corporate Social Responsibility. Green Paper. https://web.archive.org/web/20030311011327/http://europa.eu.int/comm/employment_social/soc-dial/csr/greenpaper_en.pdf (13.05.2018)

in many ways related to corporate social responsibility since both terms cover environmental factors. Corporate environmental responsibility refers strictly to including voluntary environmental actions within the corporate strategy.

Main elements of environmental implications of a company's operations are the following:

- eliminating waste and emissions;
- maximizing the efficient use of resources and productivity;
- minimizing activities that might impair the enjoyment of resources by future generations.[31]

So far corporate social and environmental responsibility is mostly promoted by a number of large or companies, it is relevant in all types of companies and all sectors. Wider application of CER in is of central importance, given that they are the greatest contributors to the economy and employment and also to industrial pollution. Although many SMEs already take up their social and environmental responsibility, further awareness-raising and support to disseminate good practice could help promote voluntary environmental actions among them.[32]

Subject-related literature gives various reasons for the growing interest in sustainability and environmental operations in the business world. Gómez-Bezares *et al.*[33] brings out the following:

- an increase in the productivity of a firm's resources and savings due to a reduced amount of waste;
- the elimination of non-effective processes;
- a reduction of required inputs and compliance and liability costs;
- higher economic value of products or services due to consumer demand for green and socially responsible goods;
- less public and community pressure;
- revenue enhancement by attracting and retaining employees.

Main drivers and challenges of CER

One of the main drivers for companies to become aware of their environmental responsibility and change their practices to become more environmentally responsible is government legislation or the threat of legislation. A significant factor that drives voluntary action is the competitive environment among companies generated by external stakeholders – media, public, shareholders. In recent years; governments, activists, and the media are very proficient at holding organizations accountable for the social and environmental consequences of their business activities. [34]

Main challenges include the cost of making changes and difficulties in predicting economic gains that follow the changes. Both can be risky for a company's management. New technologies can often be too expensive for a lot of companies, especially SMEs.[35]

Organisational environmental communication

Organizational environmental communication is included in the umbrella concept of 'organizational communication'. Internal communication usually has lower status than external communication that includes activities like marketing, where economic profit can more easily be measured. Organizational communication about the environment can have both internal as well as external audiences. [36]

Internal environmental communication

The way an organization communicates environmental issues within itself and with external stakeholders affects how it's members perceive the environment. In order for the employees to acknowledge that environmental responsibilities are important, the organization must support active engagement in dialogue about these issues. Communicating environmental responsibilities only through official policy documents and memos is not enough If the environmental responsibilities are not integrated in daily routines then no matter how ambitious the

[31] *supra* note 30

[32] *Ibid*

[33] Gómez-Bezares, F., Przychodzen, W., Przychodzen, J. (2016). Corporate Sustainability and Shareholder Wealth - Evidence from British Companies and Lessons from the Crisis. Sustainability 2016, 8, 276; doi:10.3390/su8030276.

[34] Dummet, K. (2006). Drivers for Corporate Environmental Responsibility (CER). Environment, Development and Sustainability. Volume 8, Issue 3, pp 375–389

[35] *Ibid*

[36] Adamsson, E. (2012). Forming and Communication of and Environmental Identity and Image – the Case of Riksbyggen. https://www.diva-portal.org/smash/get/diva2:537830/FULLTEXT01.pdf (13.05.2018)

policies – they will become just empty words. The employees will feel alienated from the corporate environental identity unless they are involved in the environmental communication process.[37]

External Environmental Communication

The most credible and also most effective communication channels for reaching external publics are generally informal - employees play an important role in these. In order for a company to create a positive environmental image the customers and external audiences need to be aware of the environmental values and actions that the company or corporation stands for. Information about the corporate identity for an external audience is often communicated in official documents and, nowadays, also on the company website. [38]

Signs and symbols work as expressions of the identity and symbolic elements are often used for identification with the organization.[39] Communicating different labels to the customers is an important part of external environmental communication. The International Standards Organisation (ISO) has developed standards for three types of environmental product claims:

- Type I (ISO 14024) claims are based on criteria set by a third party and are multiissue, being based on the product's life cycle impacts. The awarding body may be either a governmental organisation or a private non-commercial entity. Examples include the EC Eco-label, Nordic Swan and German Blue Angel;
- Type II (ISO 14021) claims are based on self-declarations by manufacturers or retailers. There are numerous examples of such claims eg 'made from x% recycled material';
- Type III (ISO/TR 14025) claims consist of quantified product information based on life cycle impacts. These impacts are presented in a form that facilitates comparison between products e.g. a set of parameters. However, there is no comparing or weighting against other products inherent within the claim. An example which has similarities with Type III claims is Volvo's product profile for its S80 passenger vehicle.[40]

Communication of the environmental performance of products and services is currently dominated by two extremes - either formal selective eco-labels (such as the EU Eco-label, Nordic Swan and German Blue Angel), or on the opposite - uncontrolled, selfdeclared environmental claims.[41]

CER and profitability

Previous studies have had rather different approaches and results in determining the relation between incorporating CER into corporate processes and profitability. Gómez-Bezares *et al*.[42] have made an overview of some of the subject related studies.

Gómez-Bezares *et al.*[43] bring our several studies where environmental actions are associated with a higher market performance. Aragon-Correa *et al.* found that firms with the most proactive environmental practices, requiring the complex coordination of several human and technical skills and heterogeneous resources, exhibited a significantly positive financial performance. Graham *et al.* are also among the supporters of a win-win environmental management paradigm - they argue that accurate voluntary environmental disclosures reduce companies' information risk and the weighted average cost of capital. Derwall *et al.* used eco-efficiency indicators as selection criterion and constructed different portfolios with high- and low-ranked companies. They found a positive relationship between eco-efficiency and stock market performance. Clarkson *et al.* provide evidence that companies engaging more deeply in voluntary disclosure of environmental information report improvements in environmental performance. This, in turn, increases the probability of obtaining external rewards for environmentally oriented activities, which can be positively related to stock market returns.

On the other hand, there are several studies that argue with the profitability aspect of environmental actions in corporate processes. Gómez-Bezares *et al.*[44] have brought out some of them. Zaho states that environmental investments appear to conflict with maximization of shareholder value - the results of the statistical analysis used in the study indicate that the registration of ISO 14001 environmental management systems led to lower profitability. Fisher-Vanden and Thorburn also provide evidence on the negative effects of voluntary corporate

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37 *Ibid*

38 *supra* note 36

39 *Ibid*

40 Allison, C., Carter, A. (2000). Study on Differet Types of Environmental Labelling (ISO Type II and III Labels). DG Environment, European Commission. http://ec.europa.eu/environment/ecolabel/about_ecolabel/reports/erm.pdf (20.03.2018)

41 *Ibid*

42 *supra* note 33

43 *Ibid*

44 *Ibid*

environmental initiatives on shareholder wealth. They suggest companies announcing membership in environmental programs experience significantly negative abnormal stock returns.

Both approaches presented by Gómez-Bezares *et al.*[45] highlight the difficulties companies encounter with the inclusion of environmental aspects into their corporate strategy and decision-making processes as well as the selectiveness of the market in reacting to environmental performance. Gómez-Bezares *et al*[46]*.* conclude that there seems to be a necessity to incorporate a proper combination of different types of activities, instead of simply maximizing the intensity of any existing environmental protection *per se.*

[45] *Ibid*

[46] *supra* note 36

Findings from previous surveys

The FSB Members' Survey on Social and Environmental Responsibility (2007)

FSB members' survey was undertaken in the light of discussions in the EU and in the UK about potential regulatory measures on CSR. The survey focused on business attitudes and actions toward the environment, the workforce and their local communities. The findings were mostly highly positive and showed that overall 92% of respondents considered their businesses to be socially and environmentally responsible. What the report uncovers is that many small business owners are unfamiliar with the terminology surrounding CSR and define their actions in this area as simply 'good business practice'.[47]

General attitudes
Small businesses have mostly been perceived as disinterested at worst and apathetic at best about the environment. On the contrary, the results showed a shift in attitude and a proactive approach by many small businesses to environmental issues. Most (83%) of respondents actively engaged in waste minimisation and recycling and 41% of businesses bought products that were more environmentally friendly. Well over a third (39%) reported that they engaged in energy efficiency measures and 30% changed their core products and services to be more environmentally friendly.[48]

Motivation for being environmentally responsible
The biggest proportion (85%) of businesses cited personal views and beliefs as their motivation for undertaking environmental activities with 76% citing good business practice. Over half highlighted a commitment to reducing their environmental impact and a quarter recognised the public relations benefits of demonstrating environmental responsibility. Pressure from external parties like other businesses, the government, suppliers, customers or employees was not considered as an important motivator.[49]

Barriers that small businesses face
Small businesses are still very much hampered by lack of time, the size of their business and the complexity of legislation emanating from the EU on the environment. When asked what would make involvement with the environment easier respondents stated that guidance on how to get involved and information on business benefits would help. The key problem for many small businesses has not been apathy but lack of awareness of what they can and should be doing to seek effective environmental solutions to waste disposal and other areas. Many FSB members were already implementing socially and environmentally responsible practices but were in many cases unfamiliar with the concept of CSR.[50]

Attitudes to CSR
Many small businesses are not driven by any commercial or monetary benefits from engaging with social and environmental issues but consider these activities to be good and responsible business practice.

Recommendations for the Support and Promotion of Corporate Social Responsibility among Small Businesses:
• government funding into incentives to engage small businesses in a more structured manner in CSR activities;
• seek to improve the current voluntary environment;
• promote simple and effective ideas to increase and enhance current participation;
• promotion of CSR through initiatives like the UK's Better Business Journey;
• celebrate and award businesses that apply ethical values and demonstrate positive impacts on staff, local communities and the environment.[51]

ACCA's paper on Embedding Sustainability in SMEs (2012)

According to ACCA's paper[52], the number of employees is one of the most influential structural factors affecting the implementation of environmental practices by a company. Therefore, any initiatives that focus on engaging

[47] Connell, N. (2007). Federation of Small Businesses. Social and Environmental Responsibility and the Small Business Owner. https://www.fsb.org.uk/LegacySitePath/policy/assets/CSR%20Dec%202008.pdf (13.03.2018)
[48] *Ibid*
[49] *Ibid*
[50] *Ibid*
[51] *Ibid*
[52] The Association of Chartered Certified Accountants. (2012). Embedding Sustainability in SMes. http://www.accaglobal.com/content/dam/acca/global/PDF-technical/small-business/pol-tp-esis-v1.pdf (13.03.2018)

the SME sector should not only take into account the differences between large companies and SMEs, but also the differences between micro, small and medium-sized enterprises in this respect.

Furthermore, research has demonstrated that for SMEs, the ownermanager's personal motivations for taking socially responsible initiatives are more important than for example, marketing, strategic, or public relations approaches, in visible contrast to sustainability motivations for larger firms. Hence, initiatives that aim to increase the interest and uptake of sustainability in SMEs need to be able to engage owner-managers directly with a thorough understanding of their motivations. Fortunately, ACCA's research among the world's most promising high-growth SMEs shows that many high-impact entrepreneurs are motivated by the need to make a difference in the world, and that this motivation correlates with good environmental practice further down the line. On the other hand, those motivated mostly by money end up developing their businesses more slowly.[53]

Flash Eurobarometer on SMEs, Resource Efficiency and Green Markets (2015)

15,020 enterprises were interviewed via telephone on behalf of the European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs in EU Memberstates. Firstly, companies were asked about the current actions they were taking to be more resource efficient. Despite the large decrease in both measures since 2013, minimising waste and saving energy were still the most common resource efficiency actions. Looking first at SMEs, at least half said they were minimising waste (60%), saving energy (59%) and saving materials (54%). At least four in ten SMEs were saving water (44%), or recycling by reusing material or waste within their company (40%). One quarter of SMEs were selling their scrap material to another company (25%), while 22% were designing products that are easier to maintain, repair or reuse. Just over one in ten said they were using predominantly renewable energy (11%). More than one in ten SMEs was not taking any actions to be more resource efficient (13%). There was a seven percentage point increase in the proportion of SMEs that said they were not taking any actions to be more resource efficient compared to 2013.[54]

As well as the actions they were taking at that moment, companies were also asked about additional resource efficiency actions they were planning to implement in the next 2 years. As was the case in 2013, saving energy and minimising water were the most commonly planned resource efficiency actions for the next two years. One quarter (25%) of SMEs said they were not planning to implement resource efficiency actions in any of the areas.[55]

Companies that had taken at least one resource efficiency action were asked about difficulties they encountered when trying to set up their actions. More than one third of SMEs encountered no difficulties when setting up resource efficiency actions. However, 29% of SMEs said they encountered complex administrative or legal procedures when setting up their resource efficiency action or actions and at least one in five said that the cost of environmental actions (23%), the difficulty to adapt environmental legislation to the company (21%), the lack of demand for resource efficient products or services, or the lack of specific environmental expertise (both 20%) were difficulties. Almost one in five SMEs found difficulty in choosing the right actions for their company (18%), while 15% had difficulties with the technical requirements of the legislation not being up to date. Just over one in ten (11%) said the lack of supply of required materials, parts, products or services was a difficulty.[56]

Substitution, Including Grouping of Chemicals & Measures to Support Substitution

The 7th Environment Action Programme (7th EAP), adopted in 2013 by the European Parliament and the Council, mandated the European Commission to develop by 2018 'a Union strategy for a non-toxic environment that is conducive to innovation and the development of sustainable substitutes including non-chemical solutions'.[57] In preparation of the strategy for a non-toxic environment, a comprehensive study was commissioned, among them a sub-study (Sub-study A) 'Substitution, including grouping of chemicals & measures to support substitution'. The survey collected answers from SMEs as well as large companies from 16 different countries. [58]

[53] *supra* note 52

[54] Flash Eurobarometer 426. (2015). SMEs, Resource Efficiency and Green Markets.

[55] *Ibid*

[56] *Ibid*

[57] European Commission. (2017). Towards a Non-Toxic Environment Strategy. http://ec.europa.eu/environment/chemicals/non-toxic/index_en.htm (21.3.2018)

[58] *supra* note 57

Of the 98 respondents 81% indicated that they have implemented the substitution of hazardous chemicals in the last ten years. Of those who had not, 10% indicated that this was due to a failure to find a suitable alternative, despite searching for one. 9% indicated not to have considered substituting hazardous chemicals.[59]

Main drivers

The survey confirmed that the legislative requirements are seen as the main driver of substitution. Regulatory pressure is the most important factor driving substitution. 95% of the respondents believe that the REACH Regulation is important to driving substitution of hazardous chemicals; health and product safety legislations were important according to well over 80% of the respondents. Also, over 80% of the respondents considered supply chain requests, workers' and consumers' concerns important or very important in driving substitution. Some of the respondents pointed out that NGO black-listing can be an unfortunate driver, as they deem the criteria utilised to identify the substances to be included in the lists to be less rigorous than REACH and purely based on hazard without consideration of actual risk.[60]

Main barriers

The availability of information on the technical feasibility of alternatives and on their hazards and risks, combined with the subsequent uncertainties over their market potential and their regulatory fate were listed as important obstacles by over 85% of the respondents. The lack of resources at company level, competition with extra-EU companies and ineffective communication with suppliers about potential alternatives were also indicated as important by over 70% of the respondents.[61]

[59] *supra* note 57

[60] *Ibid*

[61] *Ibid*

METHODOLOGY

Research questions

ACCA's paper[62] states that the number of employees is one of the most influential structural factors affecting the implementation of environmental practices by a company, so the differences between micro, small and medium-sized enterprises should also be accounted for**.** Therefore, we aim to find out how do environmental practices and attitudes of micro, small and medium sized SMEs differ.

Q1: How do environmental practices and attitudes of micro, small and medium sized SMEs differ?

The Baltic countries have a similar economic structure, the three countries share common developments and key structural features. When looking at specific sectors one can discern differences in areas of specialisation. While Latvia and Lithuania both have a relatively sizeable food sector, Estonia is the only oil producer of the three and its electronic and electrical equipment industry is relatively more developed. Also, Lithuania has an important chemical sector, while Latvia specialises in the pharmaceutical industry.[63] Estonia is among the countries who generated the highest amounts the of hazardous waste in Europe, due to the intensive mining and quarrying, and shale oil sectors, respectively[64].

Q2: How do the Baltic SMEs in Estonia, Latvia and Lithuania differ in terms of environmental actions?
Q3: How do the SMEs in various sectors differ?

Corporate social and environmental responsibility is mostly promoted by a number of large or companies. On the other hand, SMEs represent 99% of the economy and have a large cumulative environmental impact. Therefore, their willingness to incorporate environmental actions into the production process is of high importance.

Q4: Do SMEs in Estonia, Latvia and Lithuania incorporate voluntary environmental actions into their production processes?
Q5: Do SMEs acknowledge the fact that they have environmental responsibility?

A comprehensive study[65] about substitution of hazardous substances showed that regulatory pressure is the most important factor driving substitution. Also, health and product safety and supply chain requests were considered important. According to Dummet[66], in recent years; governments, activists, and the media are very proficient at holding organizations accountable for the social and environmental consequences of their business activities. External stakeholders have created a competitive environment for the companies. Transparency about economic, environmental, and social impacts has become a fundamental component in effective stakeholder relations[67]. According to The FSB Members' Survey on Social and Environmental Responsibility[68], most companies cited personal beliefs as their main motivation to reduce the environmental impact and pressure from external parties like other businesses, the government, suppliers, customers or employees was not considered as the most important motivator.

Q6: What are the main motivators for substituting hazardous substances in the production processes?
Q7: For what reasons do companies incorporate voluntary environmental actions into their production processes?
Q8: Do SMEs in the Baltics feel pressure from the external stakeholders to be more environmentally friendly?

According to Dummet[69] the main challenges of including environmental actions into production processes include the costs of making changes and difficulties in predicting economic gains that follow the changes. New technologies are often too expensive for a lot of SMEs. The FSB Members' Survey on Social and Environmental Responsibility[70] found that small businesses are still very much hampered by lack of time, the size of their business and the complexity of legislation emanating from the EU on the environment. Gómez-Bezares *et al.*[71]

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62 *supra* note 52

63 Poissonnier, A. (2017). European Commission. The Baltics: Three Countries, One Economy? European Economy Brief 024. https://ec.europa.eu/info/sites/info/files/eb024_en.pdf (21.03.2018)

64 *supra* note 16

65 *supra* note 57

66 *supra* note 34

67 *supra* note 17

68 *supra* note 45

69 *supra* note 34

70 *supra* note 47

71 *supra* note 33

highlight the difficulties companies encounter with the inclusion of environmental aspects into their corporate strategy and decision-making processes as well as the selectiveness of the market in reacting to environmental performance.

Q9: Do the companies find environmental sustainability profitable at the moment and in the future?
Q10: What are the main barriers to taking up voluntary environmental actions?

Small and medium sized enterprises generally have less resources and personnel capacities as well as competences to invest in substitution. One of the assumptions of project 'Baltic Pilot Cases on Reduction of Emissions by Substitution of Hazardous Chemicals' was also that SMEs may often be unaware of what the substances contain and often cannot afford complex authorization procedures and lack the knowledge, skills and funds to find alternative substances. [72]

Q11: What kind of knowledge are SMEs lacking and what kind of assistance do they need in order to incorporate environmental actions into the production processes?

The way an organization communicates environmental issues within itself and with external stakeholders affects how it's members perceive the environment. In order for the employees to acknowledge that environmental responsibilities are important, the organization must support active engagement in dialogue about these issues. Communicating environmental responsibilities only through official policy documents and memos is not enough.[73]

Q12: Do companies have internal environmental policies?
Q13: Are employees involved in the green strategies?

In order for a company to create a positive environmental image the customers and external audiences need to be aware of the environmental values and actions that the company or corporation stands for.[74] Various sustainability frameworks and initiatives stress the importance of transparency about economic, environmental, and social impacts and how it has become a fundamental component in effective stakeholder relations[75]. Information about the corporate identity for an external audience is often communicated in official documents and, nowadays, also on the company website. Signs and symbols work as expressions of the identity and symbolic elements are often used for identification with the organization.[76]Communication of the environmental performance of products and services is currently dominated by two extremes - either formal selective eco-labels (such as the EU Eco-label, Nordic Swan and German Blue Angel), or on the opposite - uncontrolled, selfdeclared environmental claims.[77]

Q14: What kind of elements of environmental corporate identity (labels) do companies use to promote their environmental values to the external stakeholders?
Q15: Are SMEs aware of regulations and rules concerning promoting their identity through formal labels and do they follow them?

Hazardous substances are a risk not only to the environment as a whole but also to the consumers and employees. In the Baltic States voluntary agreements in the industry are uncommon and the main driving force behind any substitution is the legal obligations. There are several reasons why substitution is slow or seldom takes place in the Baltic States and in fact also in other EU countries, among others economical risks, organisational risks, lack of expertise.[78]

Q16: Do SMEs have strategies for preventing damage from hazardous substances to the environment, employees (occupational health) and customers (consumer health)?
Q17: What kind of methods do SMEs use to replace hazardous substances?
Q18: Have SMEs taken any voluntary actions (beyond legislation) regarding substitution of hazardous substances?

Many small businesses are not driven by any commercial or monetary benefits from engaging with social and environmental issues but consider these activities to be good and responsible business practice[79]. Research

[72] *supra* note 8
[73] *supra* note 36
[74] *Ibid*
[75] *supra* note 17, 22
[76] *supra* note 36
[77] *supra* note 40
[78] *supra* note 8
[79] *supra* note 47

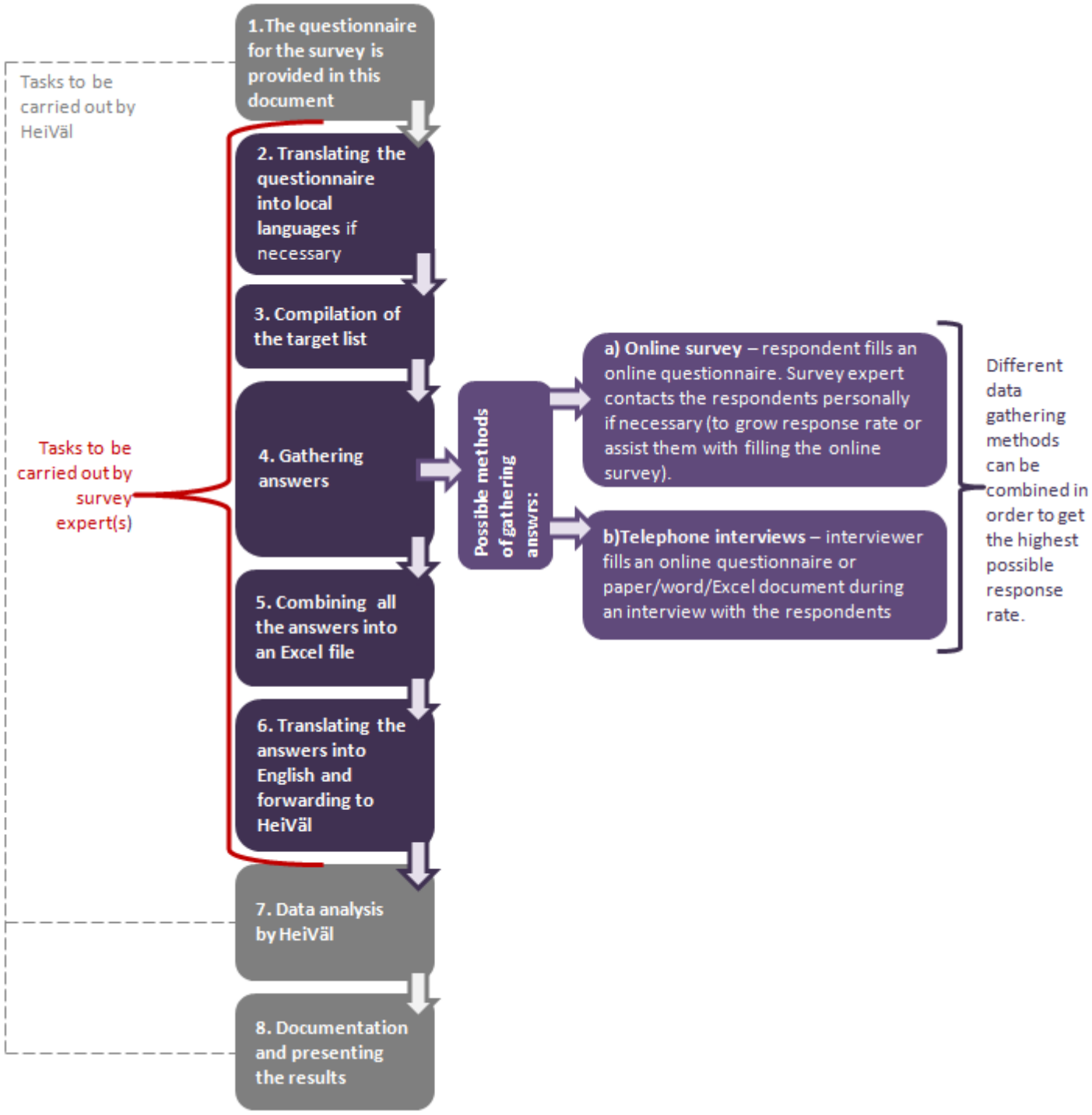
has demonstrated that for SMEs, the ownermanager's personal motivations for taking socially responsible initiatives are more important than for example, marketing, strategic, or public relations approaches[80].

Q19: ***What do SMEs see as the most efficient measures to promote environmental corporate responsibility?***

[80] *supra* note 52

Research design

Research design process in graph



All of the phases of the survey are described on the next pages.

1. Questionnaire

The questionnaire used in the survey is provided in this document. The questionnaire includes single-select questions and multiple select questions with answer alternatives, scale questions (on a scale of 1-10) and open comments. Guidance on how to move in the questionnaire was provided as well. Some questions were skipped depending on the answers.

2. Translation of the questionnaire to local languages

Survey experts were translating the questionnaires into Estonian, Latvian and Lithuanian (and Russian, if necessary) for the respective country. Using local languages helped make sure the questions were understood correctly and insures getting higher response rates. The translated version of the questionnaire was approved by the Contractor.

3. Compilation of the target list

Target groups

Enterprises to be included in the target group must fulfill the following criteria:

- small and medium size (see definition on page 5);
- located in Estonia, Latvia and Lithuania;
- producing companies from the following sectors:
    - household chemicals (household cleaning agents) producers
    - construction chemicals (paints and varnishes) producers
    - textile producers
    - metal Processing companies
    - food products producers (canned food).
    - furniture producers
    - construction companies.

In the process of analysis additional subgroups were identified as following:

- motor vehicle services, wood processing, electronics, services, non-metallic mineral products

Compilation of the target list

In order to collect the list of relevant SMEs in various areas we reccommend using public databases, member lists of professional umbrella organisations (like food producers association) etc. Valuable data could be gathered from business registry and EMTAK codes used for identifying areas of company activity as well.

Additionally, the are several companies, who sell datalists of the Baltic companies that can be created combining different selection options including region, area of activity, company size, turnover etc. Some of the possibilities:

- https://targetgroups.eu/en
- https://www.creditinfo.ee/en/products-services/baltic-target-b2b-otseturunduse-andmebaas/
- https://www.klienditugi.ee/en/kliendibaas/

The target list should include the following information:

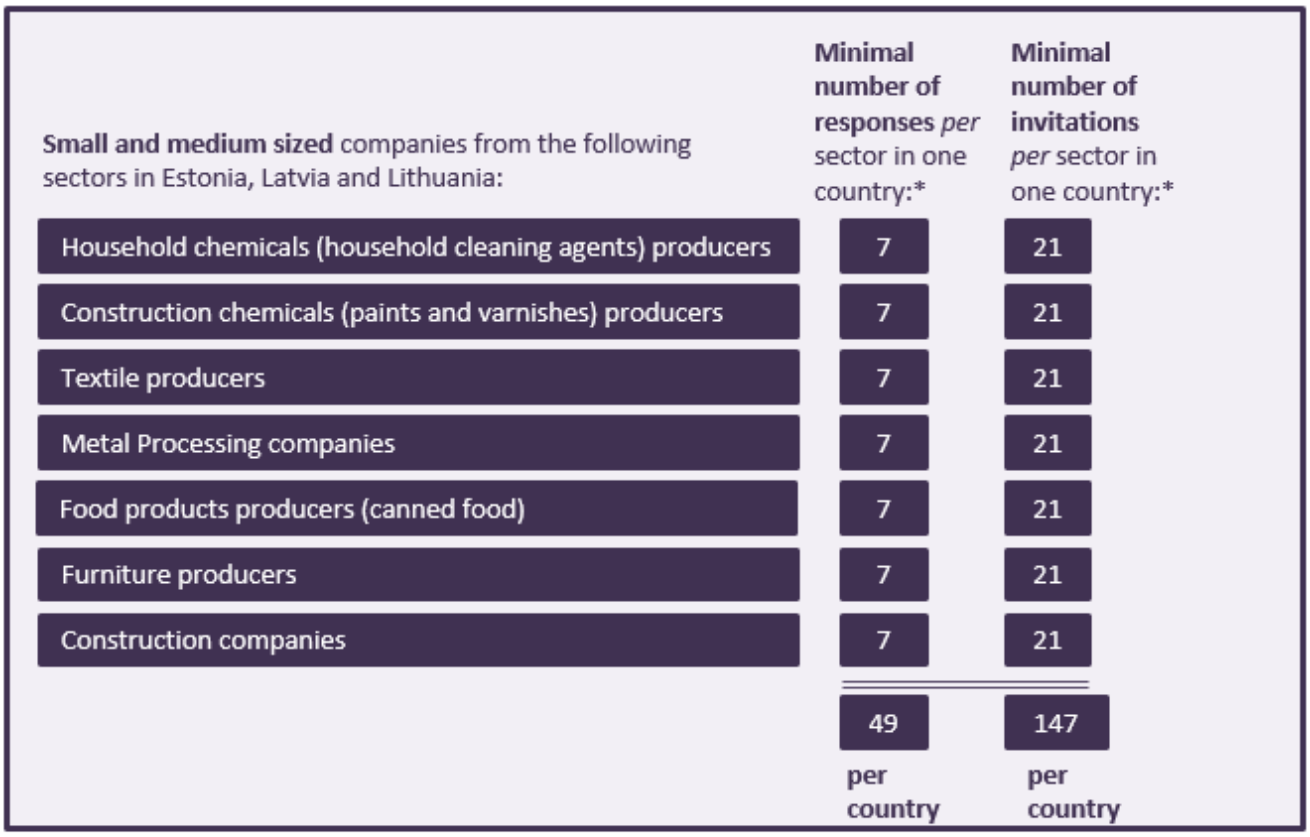
- name of the company
- size of the company
- sector
- contact e-mail
- contact phone number

Estimated size of the target list

In case of similar online surveys the usual response rate may be around 10-15%. We expect all of the respondents to be contacted personally (also in case of using an online questionnaire) and if necessary the answers should be gathered from them in the form of telephone interview. The goal is to get at least 1/3 of the answers.

The survey has to cover 7 segments in 3 countries so we propose to have minimally 7-10 enterprices per segment unless the segment is smaller. This adds up to 49-70 responses from companies per country. This ensures the possibility of comparisons between countries and segments.

The minimal invitation and response count per country is depicted on the following scheme:



* The response and invitation count may be smaller if there are less producing companies in that sector.

The survey experts are expected to create a sample of a size that is proportional to the actual number of enterprises in each sector under observation – sectors where there are more producing companies in a specific country should have a higher invitation and response count. Therefore, the survey expert is expected to show the number of the actual population – the actual population of producing companies in the 7 sectors under observation in this survey.

4. Gathering answers

There are several ways to gather data using the questionnaire provided in this document (see Annex. Questionnaire):

1) Online questionnaire

Survey expert is to design an online questionnaire and invitation letter to be sent out using the exact questionnaire given in this document. The questionnaire and invitation letter should be designed in local languages.

All of the participants, who haven't filled the survey after the initial send-out are to be contacted personnally via telephone. If necessary, a telephone interview is to be conducted, where the interviewer fills the online survey for the respondent.

2) Telephone interview

The survey expert may also use a Word/Excel or paper template of the questionnaire and gather answers by telephone.

Both methods may be combined if necessary.

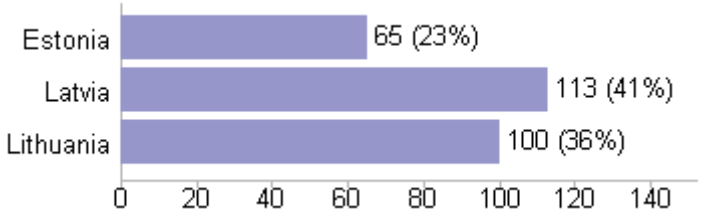
5. Collecting the answers into a single Excel file, 6.Translation of the answer file

Regardless of the data gathering method (web-survey, paper, template) the final answers were collected into a single Excel file. All of the answers (including texts of open questions) were translated into English before sending the answers to HeiVäl and Contractor.

7. Data analysis, 8. Documentation and presentation of the results

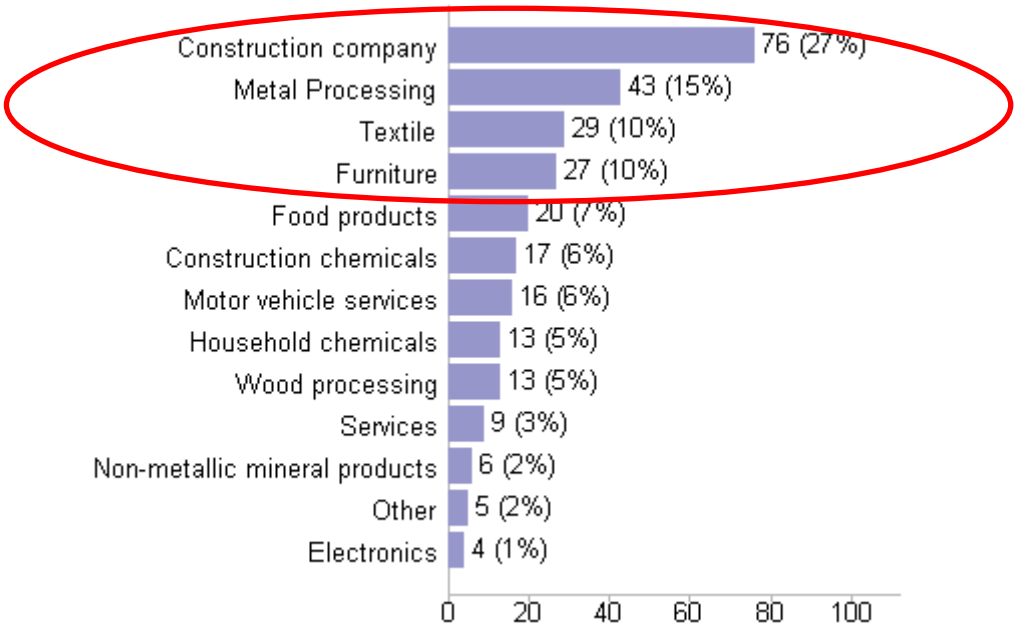
BACKGROUND INFORMATION
Respondent count by countries

The questionnaire was answered by 278 companies. The respondents were from Estonia, Latvia and Lithuania. From Estonia there were 65, from Latvia 113 and from Lithuania 100 answered questionnaires. This is illustrated by the following graph.



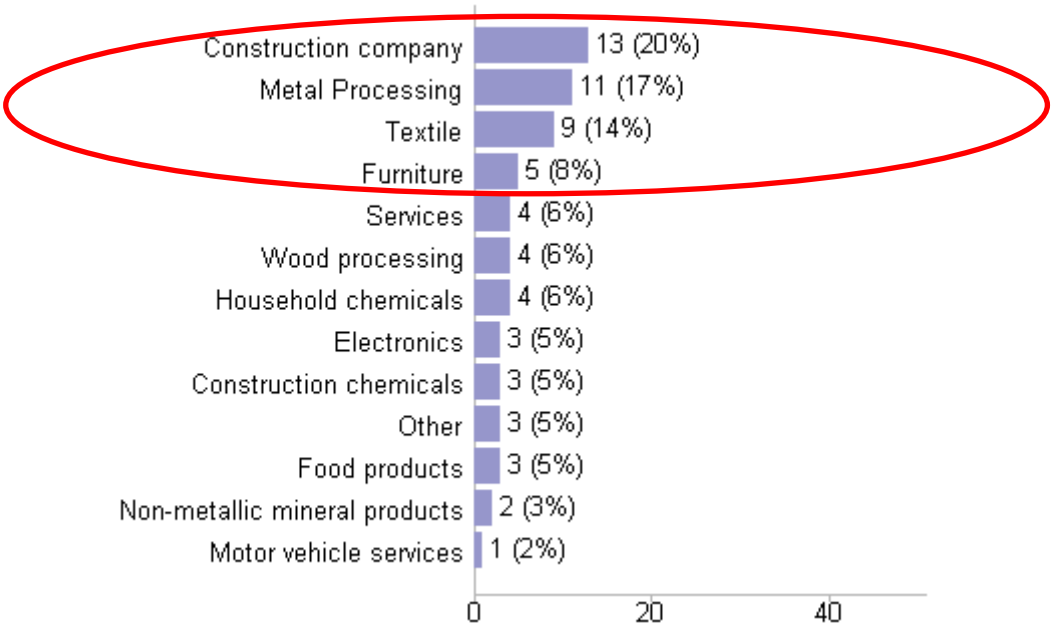
Respondent count by sectors

The respondents were asked to select the production area of the company. The possible sectors were the following: household chemicals (household cleaning agents), construction chemicals (paints and vanishes), textile, metal processing, food production (canned food), furniture, construction company and other. Since a lot of companies had identified themselves in the sector „other", new sectors were created. The new sectors are the following: wood processing, motor vehicle services, electronics, services and non-metallic mineral products. The companies were categorized under these sectors based on the company's NACE code. The distribution of companies in different sectors is described by the following graph.



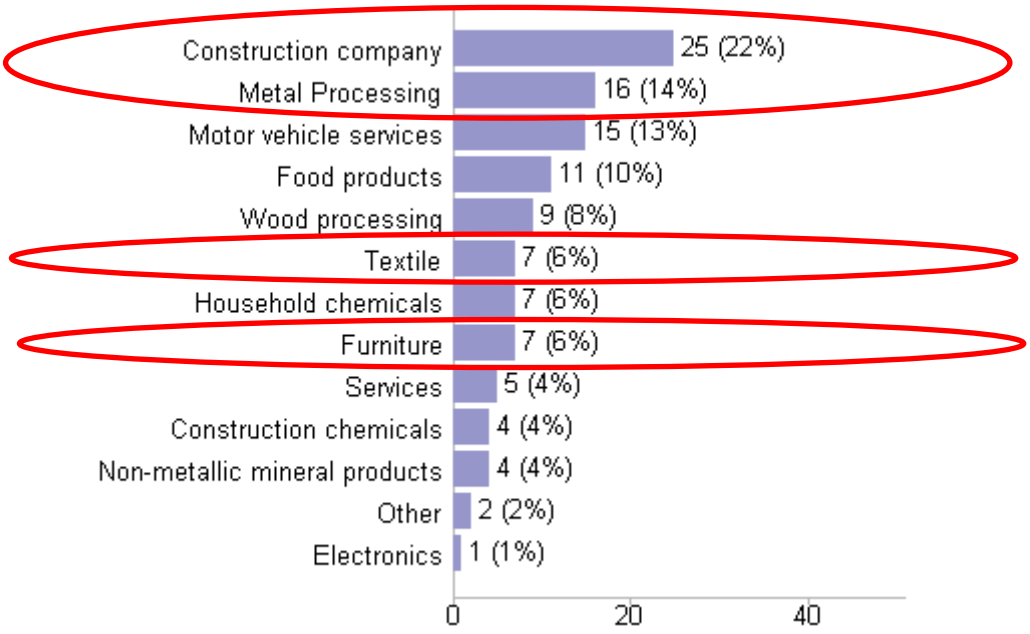
Since some sectors have few respondents, under some research questions only contruction company, metal processing, textile and furniture are brought out.

Estonia:
The most answers from Estonia came from construction company, metal processing and textile production areas. The distribution of Estonian respondents by production area is described by the following graph.



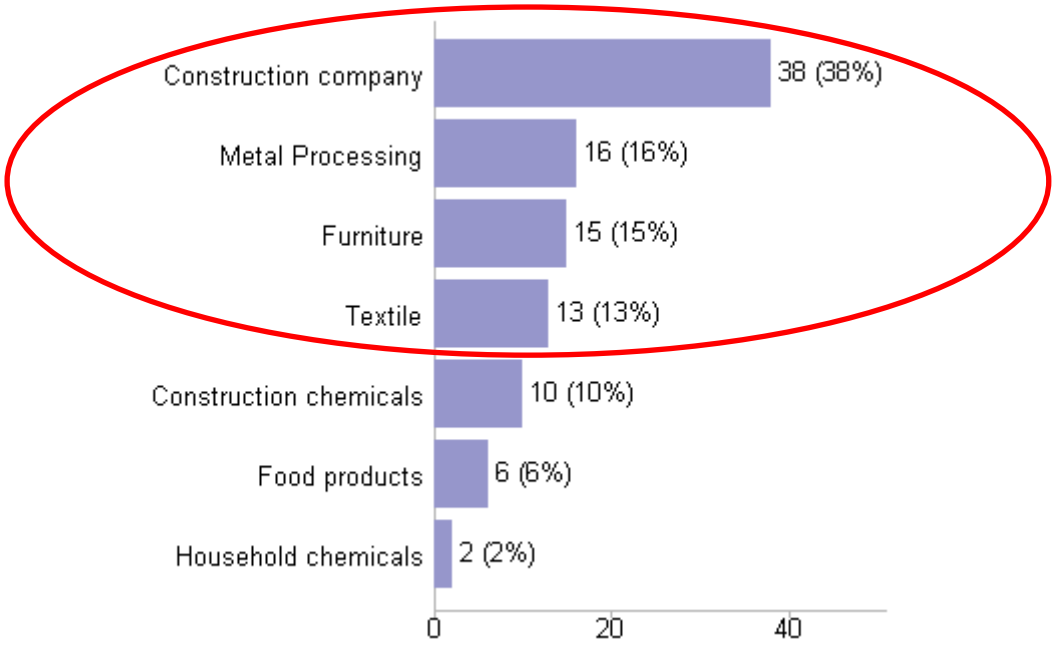
Latvia:

The most answers from Latvia came from construction company, metal processing and motor vehicle services sector. The distribution of Latvian respondents by production area is described by the following graph.



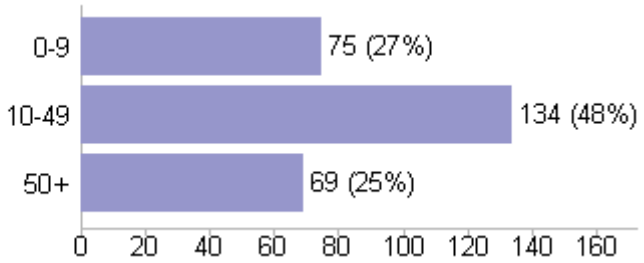
Lithuania:

The most answers from Lithuania came from construction company, metal processing and furniture production areas. The distribution of Lithuanian respondents by production area is described by the following graph.



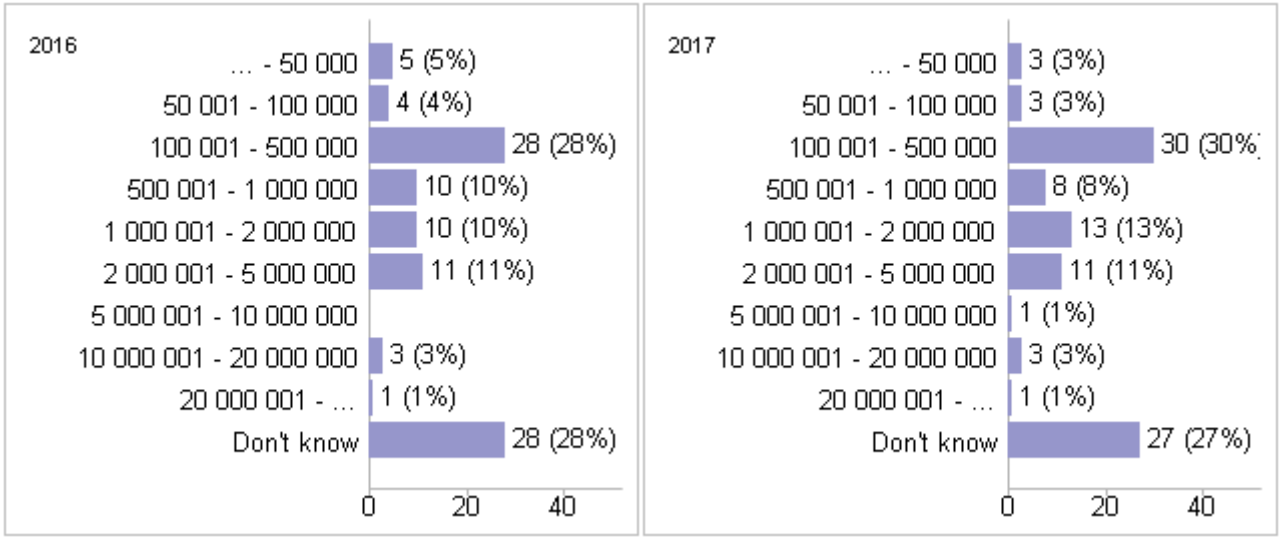
The number of employees of the companies

Since the focus was on SMEs, then respondents were asked about the average number of employees in the company. There were 75 micro companies, 134 small companies and 69 medium sized companies (subsection Company categories by European Commission). The distribution of SME company sizes is described by the following graph.



The companies' turnover in 2016 and 2017

The companies' turnover in 2016 and 2017 are described by the following graphs.



Role of the respondent

The questionnaire was answered mostly by the top management of the company. Other frequent answerers were operation managers, quality control/safety/environmental managers. The distribution of the respondents role in the company is described by the following graph.

RESEARCH QUESTIONS

Statistical differences have been calculated only for comparison between countries. There are brought out only those differences that stand out from the graphs and are statistically proven. If there is no statistical difference brought out, there is everything either statistically similar or the graphs do not indicate a possibility of difference. To test differences in frequency, chi-squared tests were applied pairwise (total of 3 tests for each question/evaluation). To test differences between the mean evaluations, Kruskal-Wallis nonparametric tests were also applied pairwise (total of 3 tests for each question/evaluation). For both tests, Benjamin-Hochberg procedure with alpha=0.05 was used. The reason for it is to lower the chances of false positives.

Estonian number of respondents was lower compared to Latvia and Lithuania therefore all Estonian respondents answers had comparatively higher weight when assessing presence of statistical differences.

Regarding every question there were always as maximum three possible combinations of statistical difference between two countries: Estonia-Latvia, Estonia-Lithuania or Latvia-Lithuania. Only statistically proven differences are mentioned below.

1. How do environmental practices and attitudes of micro, small and medium sized SMEs differ?

Micro, small and medium sized companies see SMEs as a group and their company to have environmental responsibility in the region. **Medium sized companies have evaluated the responsibility higher** than micro and small sized companies.[81]

All sized companies most frequent reasons for voluntarily integrating environmental actions into business operations are to care for employees' health, to respect human rights and to conserve environment in the region/world. For micro and small sized companies reasons are to manage risks and to create the image of an environmentally friendly company. For medium sized companies reasons are to seize growth opportunities and to manage risks.[82]

Third of micro sized respondent companies have internal environmental policies and the rest do not. More than half of small sized respondent companies have internal environmental policy. Less than half do not have a policy. More than three quarters of medium sized respondent companies have an internal environmental policy. The rest of medium sized companies either do not have or do not know.[83] **So it appears that in larger companies environmental policies are applied to larger extent.**

More than half of each sized respondent companies involve their empoyees in their green/environmental strategy. Micro sized companies have the most respondents proportionally, who do not have a strategy and the least of those, who have strategy and do not involve their employees. Medium sized companies have the least respondents proportionally, who do not have a strategy.[84]
However, the frequencies under research question 12 and 13 do not match. (Q12: Do companies have internal environmental policies? Q13: Are employees involved in the green strategies?) It might be, that some companies have separated strategies and policies, some see them as the same.

Among the respondent companies there are more of micro, small and medium sized companies, who do have a strategy for preventing occupational health issues than those who do not. More than half of micro sized companies have and around three quarters of small and medium sized companies have a strategy. Similar proportions are for a strategy for preventing damage to the environment. For preventing consumer health issues, a bit less than half of the respondents from each sized company have a strategy. Whereas more than half of micro sized companies do not have, less than half of small and medium sized companies do not have.[85]

Proportionally similar are micro and small sized companies integration of environmental concerns into business operations. Bit more than two thirds of the respondents from each sized companies do integrate concerns into business operations. Most of the medium sized respondent companies do integrate environmental concerns into business operations.[86]

2. How do the Baltic SMEs in Estonia, Latvia and Lithuania differ in terms of environmental actions?

Among Latvian respondent companies, half have and half do not have internal environmental policy. However, almost three quarters have said that they involve their employees in green/environmental strategies and around third have said that they do not have a strategy. For Estonian respondent companies the proportions are similar,

[81] See research question 5
[82] see research question 7
[83] See research question 12
[84] See research question 13
[85] See research question 16
[86] See research question 4

bit less than half have and bit more than half do not have internal environmental policy. Among the Estonian respondents, almost all who have internal policy involve their employees in green strategies. Almost three quarters of Lithuanian respondent companies have internal environmental policy. However, only bit more than half of those involve their employees.[87,88]

Around three quarters of respondents from Lithuania have a strategy for preventing occupational health issues. Among Latvian respondents, the proportion is bit smaller. Latvian and Lithuanian respondent companies have proportionally similar amount of those who have a strategy for preventing consumer health issue. Bit less than half have a strategy. Half of Latvian respondents and more than third of Lithuanian respondents do not have a strategy. Around two thirds of respondents from Latvia and Lithuania have strategy for preventing damage to the environment. Among Lithuanian respondents, more do not know, whether they have environmental strategy compared to Latvian respondents. Among Estonian respondents only third answered to the corresponding question. Of those, around three quarters have mentioned strategies and either fifth or third do not (see three lower charts on page 55 under research question 16). Majority of respondents from Estonia, who answered the corresponding question, do not integrate environmental concerns into their business operations. Latvian and Lithuanian respondents mostly do integrate environmental concerns into their business operations.[85]

3. How do the SMEs in various sectors differ?

Focus is on four main sectors, because these sectors have the most respondents. The main sectors are construction company, metal processing, textile and furniture.

Companies from furniture sector have evaluated the environmental responsibility of SMEs as a group lower than companies from the rest of the main sectors. Construction company and metal processing sector companies have similar evaluations to their own environmental responsibility. Also, they have evaluated their environmental responsibility higher than furniture and textile sectors. The latter two have similar evaluations to each other.[89]

Least important drivers for substituting hazardous substances in the production processes among respondents from construction company sector are consumers' and workers' concerns. For respondents from metal processing sector, least important drivers are consumers' concerns and supply chains' requests. For respondents from textile and furniture sectors the least importance have supply chains' requests and economic profit. The most important driver for respondents from all the main sectors are official legislations/regulations and environmental concerns.[90]

Companies from the main sectors all have evaluated government to be the most demanding stakeholder for environmental efficiency. Except for companies from textile sector, the second most demanding stakeholder is evaluated to be shareholders/investors. For companies from textile sector, the second most demanding are employees. Least demanding for companies from construction company sector are employees, for metal processing and furniture companies partners (B2B), for textile companies shareholders/investors.[91]

Companies from the main sectors see profitability of environmental sustainability similarly. Around 40% of those, who answered the corresponding question, think it is and around 40% think it is not profitable at the moment. The rest do not know. This applies to every main sector. Around half of companies from construction company, metal processing and furniture sectors think that environmental sustainability will be (more) profitable in 5 years. Of the mentioned sectors, more companies from construction company sector do not know than the rest. Companies from textile sector, that answered the corresponding question, rather think (bit more than three quarters of the respondents) that environmental sustainability will be (more) profitable in 5 years.[92]

Companies from the main sectors have evaluated the obstacles similarly. Noticable differences are for lack of resources, where metal processing and textile sector companies have evaluated the obstacle 6%-10% higher, and complexity of the regulations regarding substitutes, where textile sector companies have evaluated the obstacle 8%-10% higher than the rest.[93]

In each main sector, around third of companies need other assistance than the suggested help/assistance in the corresponding question. For companies from construction company sector, training is the most frequently selected means of assistance. This holds true for respondent companies from metal processing, but help of an external advisor or expert and help with incorporating existing environmental standards into the processes have

[87] *Supra* note 83
[88] *Supra* note 84
[89] *Supra* note 81
[90] See research question 6
[91] See research question 8
[92] See research question 9
[93] See research question 10

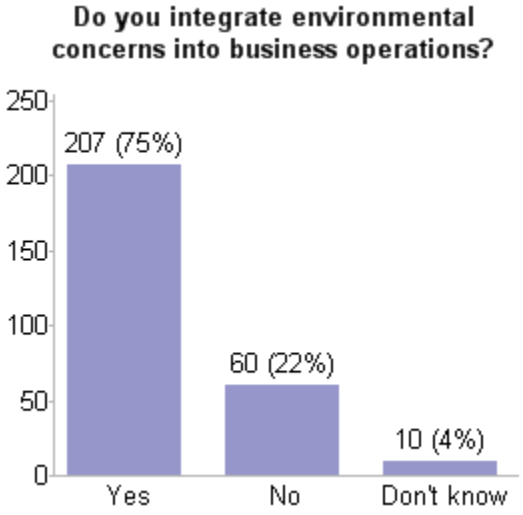
also been chosen frequently. For companies from textile and furniture sectors the most frequently selected means of assistance is help of an external advisor or expert.[94]

Around half or more than half of companies from the main sectors have an internal policy. Less than half of companies from construction company sector involve their employees in green/environmental strategy. Bit less than two thirds of metal processing companies involve their employees. Only around third of companies from textile and furniture companies involve their employees in green/environmental strategy.[95]

Companies from the main sectors rather have strategies for preventing occupational health issues and damaging the environment than preventing consumer health issues.[96] Also, the companies from the main sectors rather integrate environmental concerns into business operations.[97]

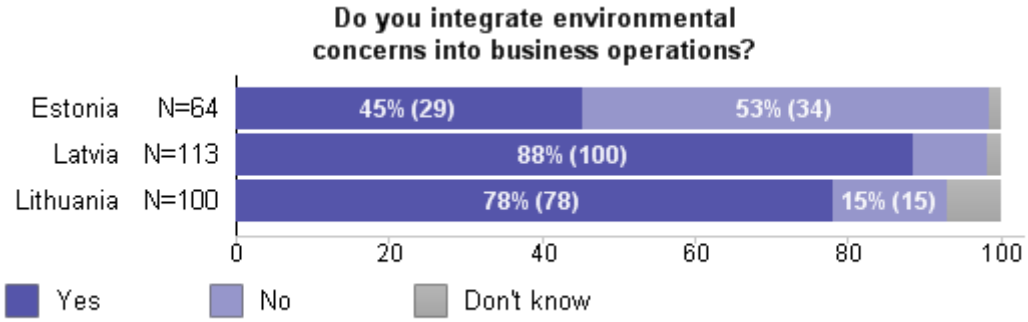
4.Do SMEs in Estonia, Latvia and Lithuania incorporate voluntary environmental actions into their production processes?

Thee quarters of the respondent companies integrate environmental concerns into their business operations. Bit more than fifth of the respondents do not integrate. This is illustrated by the following graph.



Location:

More than three quarters of respondent SMEs in Latvia and Lithuania have taken voluntary environmental concerns into their business operations. However, more than half of the Estonian respondent SMEs have not taken voluntary actions and only less than half have. This is described by the following graph.



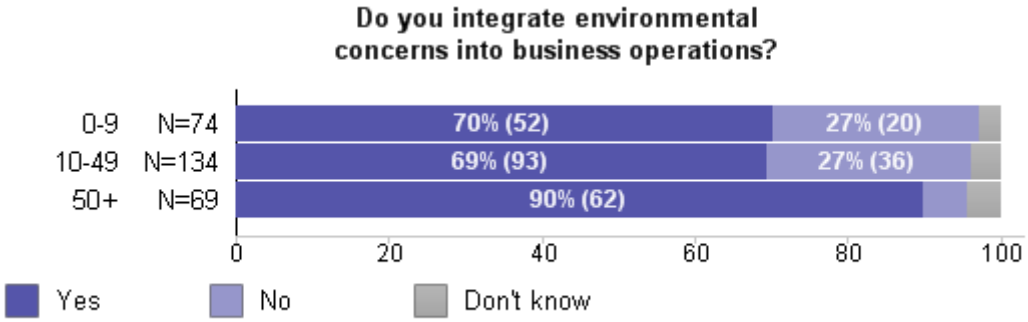
The frequencies of Estonian and Latvian as well as Estonian and Lithuanian respondents are statistically different among those who integrate environmental concerns into business operations (chose the answer „Yes“).

Size:

Micro and small respondent companies answers are similar in proportions to the overall answers. However, 90% of the medium respondent companies, who answered to the corresponding question, have chosen the answer „yes“ and only few answered „no“ or „don’t know“ to the question whether they integrate environmental

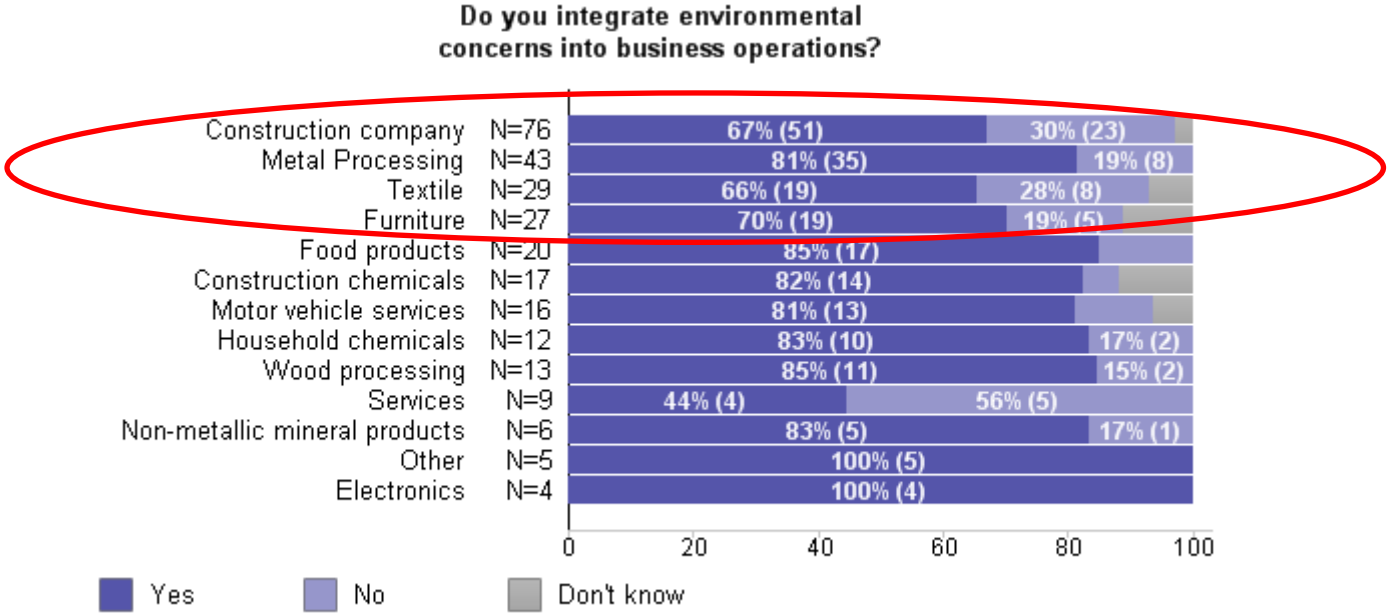
[94] See research question 11
[95] *Supra* note 83, 84
[96] *Supra* note 85
[97] *Supra* note 86

concerns into their business operations. The SMEs integration of environmental concerns is separately described by the following graphs.



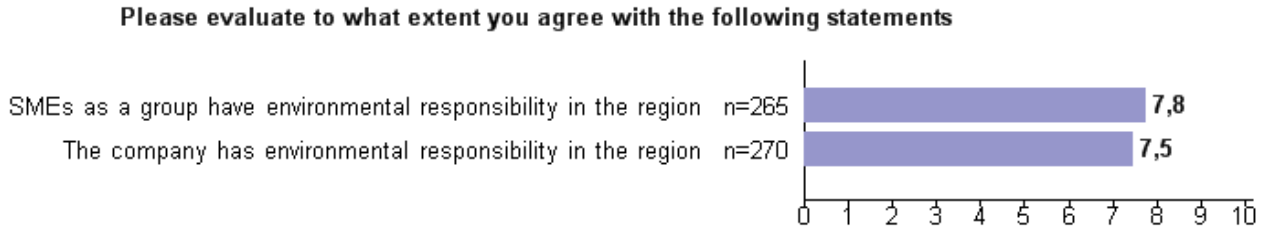
Sectors:

The following graph describes how companies from different sectors integrate environmental concerns into their business operations. Among the main four sectors, metal processing companies integrate environmental concerns proportionally the most, among the four main sectors. Other sectors integrate proportionally similarly to each other.



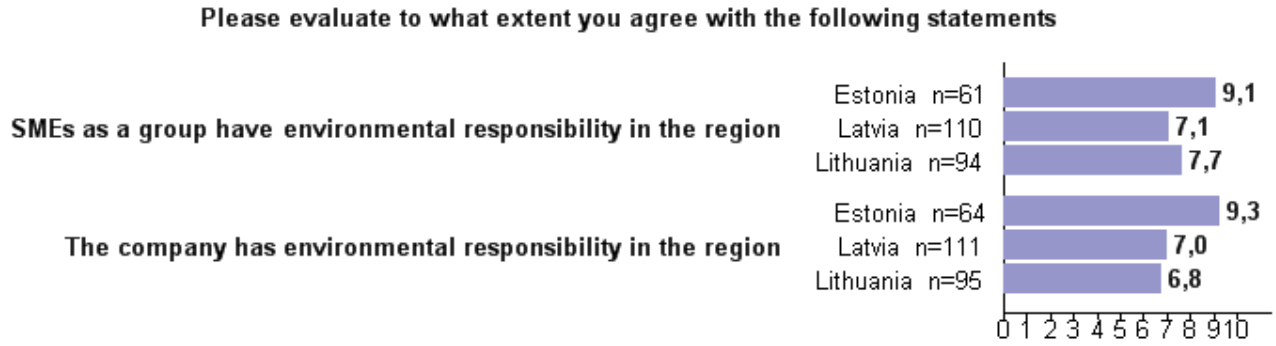
5. Do SMEs acknowledge the fact that they have environmental responsibility?

SMEs acknowledgement of their environmental responsibility was asked to be evaluated from a scale of 1 (completely disagree) to 10 (completely agree). The mean evaluation whether SMEs as a group have environmental responsibility in the region, is 7.8 and whether the company has an environmental responsibility in the region, is 7.5. This is described by the following graph.



Location:

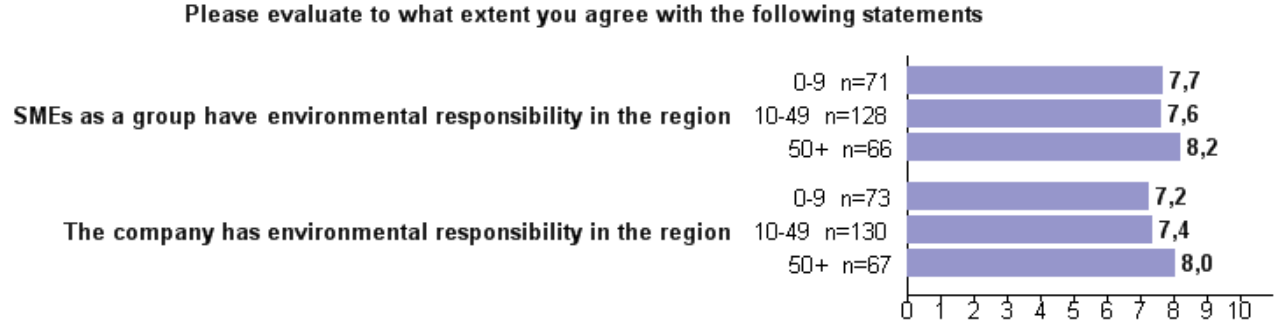
Among **Estonian** respondents, the same mean evaluations were 9.1 and 9.3 correspondingly. Among **Latvian** respondents, the same mean evaluations were 7.1 and 7.0 correspondingly. Among **Lithuanian** respondents, the same mean evaluations were 7.7 and 6.8 correspondingly. Estonian companies have the highest evaluation of their environmental responsibility. Latvian and Lithuanian level of responsibility is comparable between both countries, but significantly lower than in Estonia. However, since there are a lot more respondents from Latvia and Lithuania, then the overall evaluations are more affected by Latvian and Lithuanian evaluations. The Baltic countries respondent companies mean evaluations are described by the following graph.



The mean evaluations of Estonian and Latvian as well as Estonian and Lithuanian respondents are statistically different for both questions.

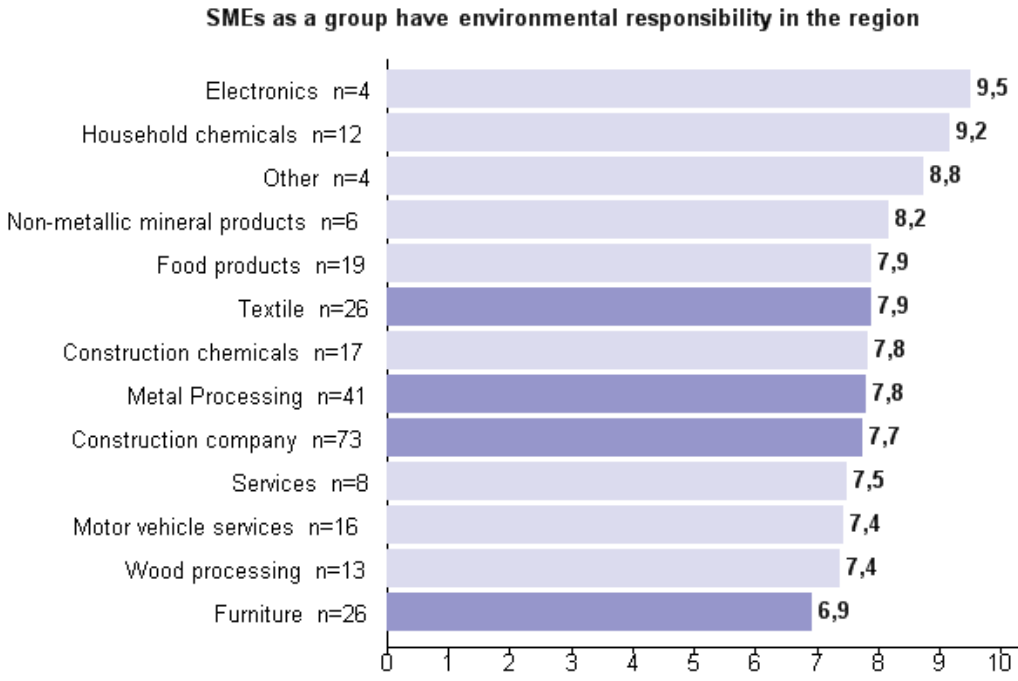
Size:

The following graph describes **micro**, **small** and **medium** sized companies evaluations of whether they see SMEs as a group and their company to have environmental responsibility in the region. As seen from the graph, the proportions to either question are similar. Medium sized companies have evaluated the SMEs and their own companies to have more responsibility compared to small and micro sized companies. Medium sized companies have evaluated the responsibility around 8 out of 10 for either question.

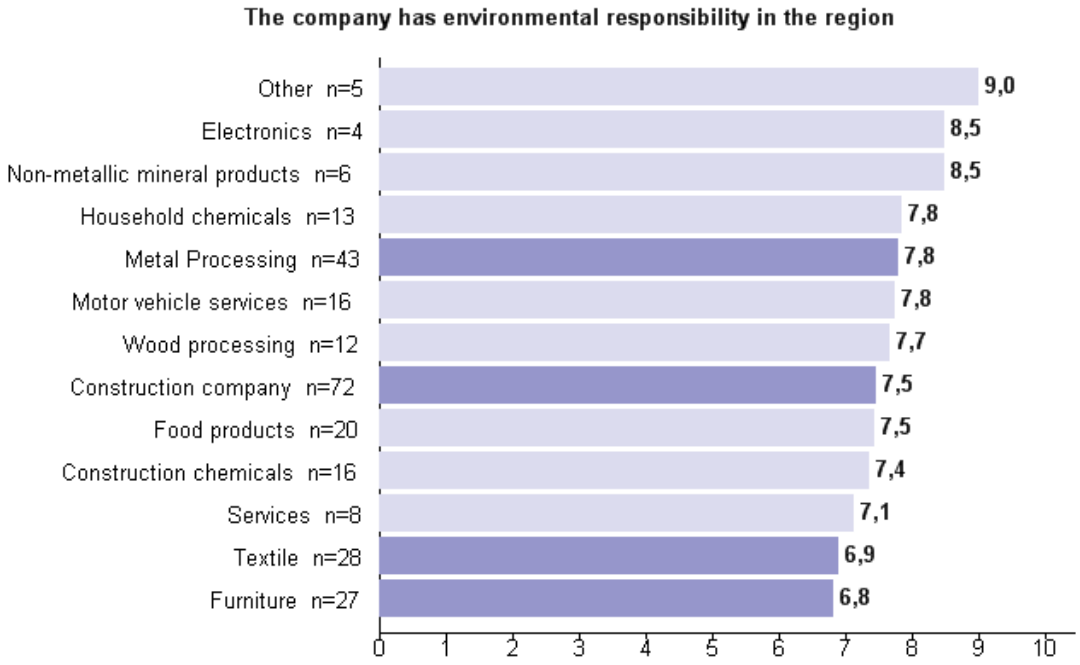


Sector:

Various sectors respondent companies evaluation of SMEs as a group to have environmental responsibility in the region is described by the following graph.



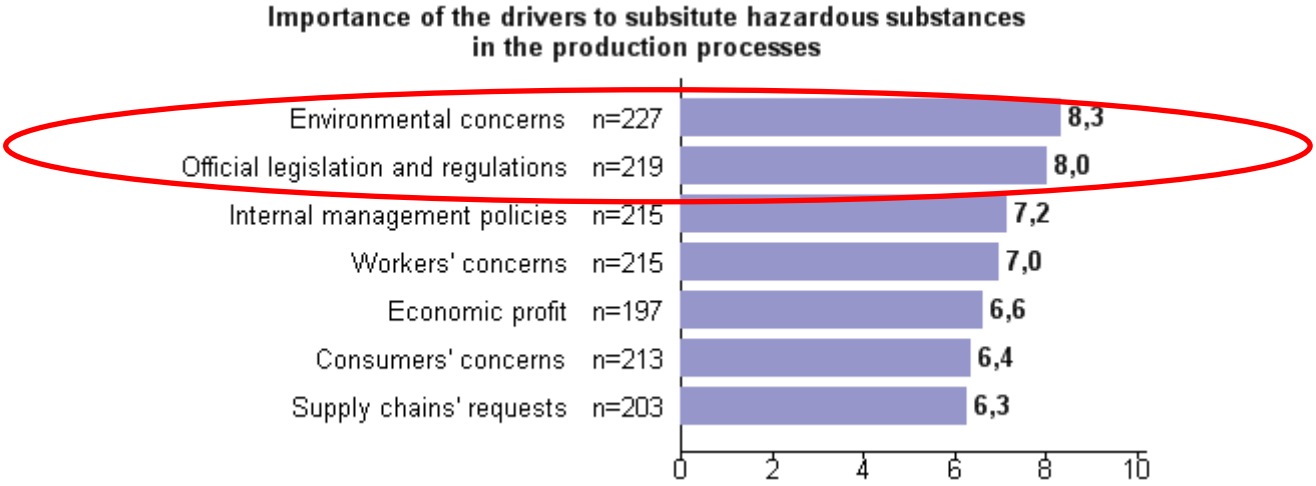
Various sectors respondent companies evaluation of the company to have environmental responsibility in the region is described by the following graph.



Thing to notice is that from some sectors the number of respondents is low and thus the results are not that reliable.

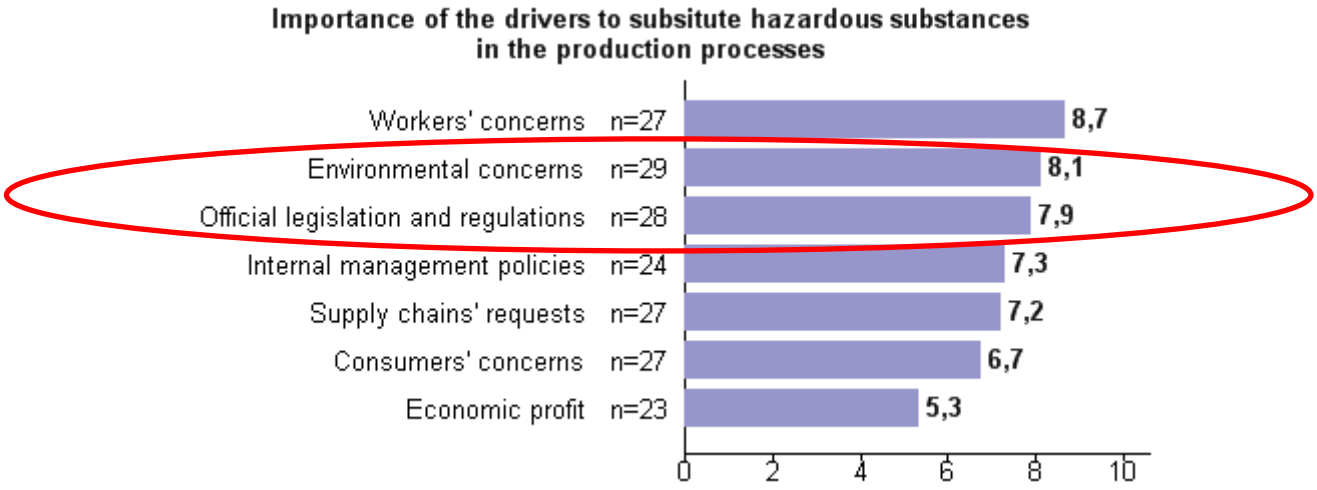
6. What are the main motivators for substituting hazardous substances in the production processes?

The main motivators for substituting hazardous substances in the production processes among the respondents are environmental concerns and official legislations/regulations. This is illustrated by the following graph.



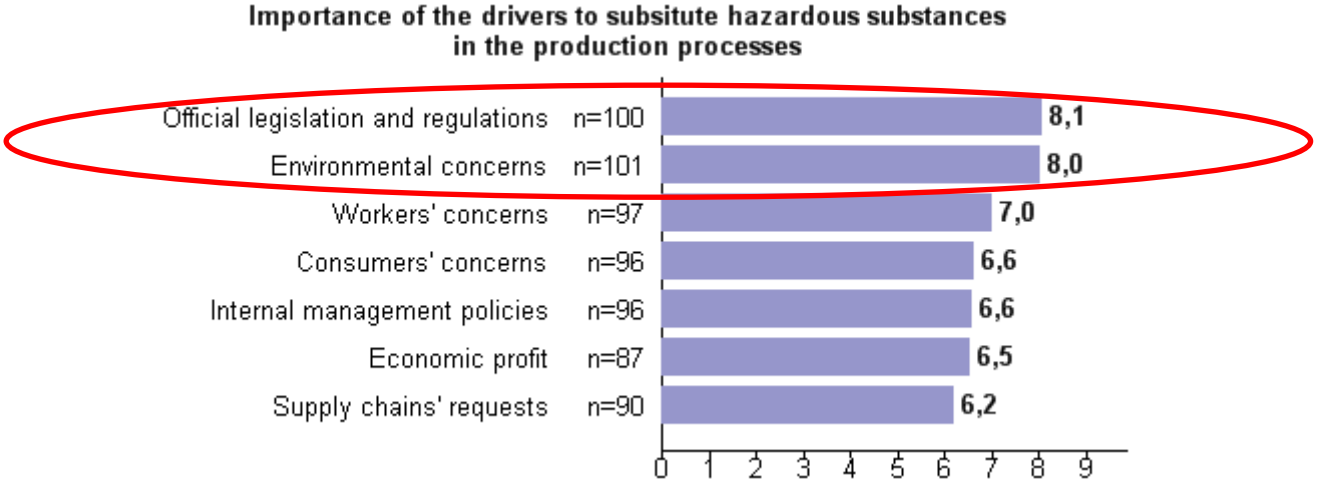
Estonia:

Among Estonian respondents, the main motivators are workers' concerns and environmental concerns. So Estonian companies seem more employee driven in environmental area compared to their southern Baltic neighbors. Estonian respondents motivators mean evaluations are described by the following graph. Thing to notice is that bit less than half of Estonian respondents answered to the corresponding question.



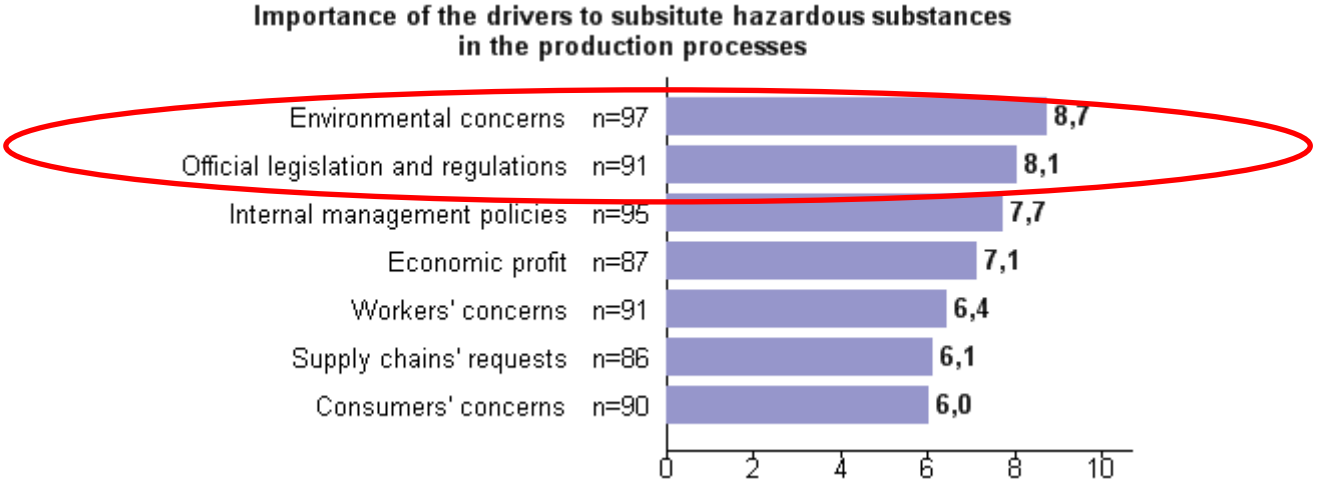
Latvia:

Among Latvian respondents, the main motivators are official legislations/regulations and environmental concerns. Latvian respondents motivators mean evaluations are described by the following graph.



Lithuania:

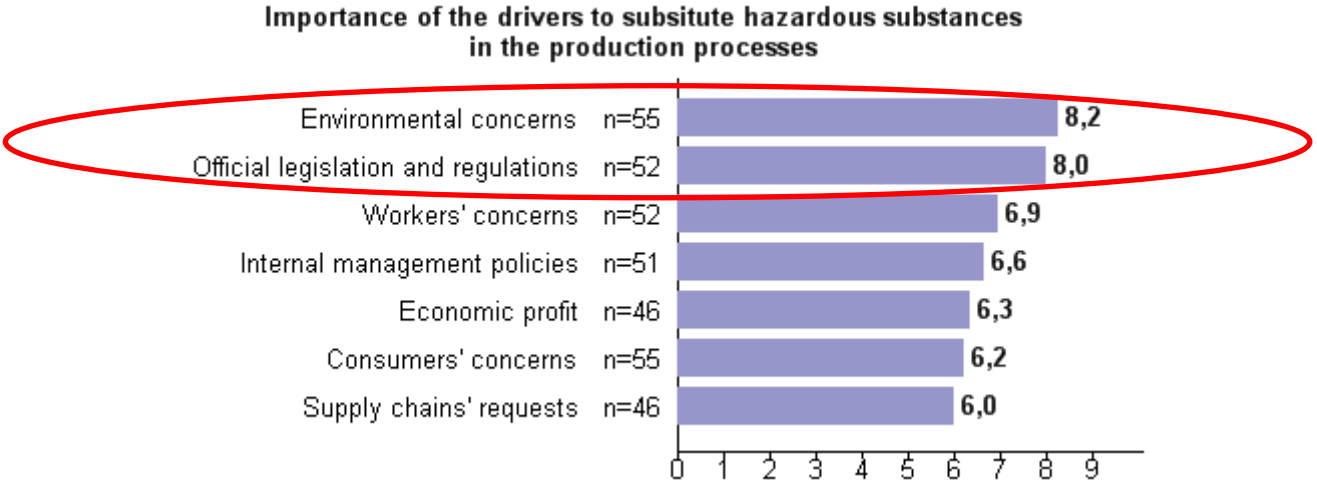
Among Lithuanian respondents, the main motivators are environmental concerns and official legislations/regulations. Lithuanian respondents motivators mean evaluations are described by the following graph.



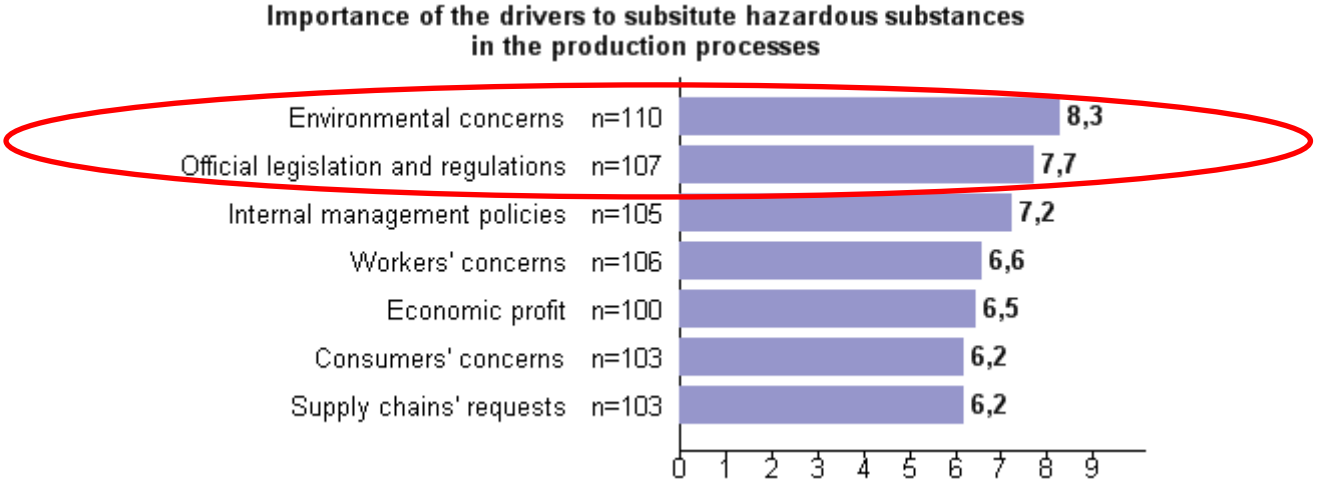
As seen from the graphs above, among the top three motivators in every Baltic country were environmental concerns and official legislations/regulations.

The mean evaluation to **workers' concerns** is statistically different between Estonia and Latvia as well as Estonia and Lithuania. The mean evaluation to **environmental concerns** is statistically different between Latvia and Lithuania.

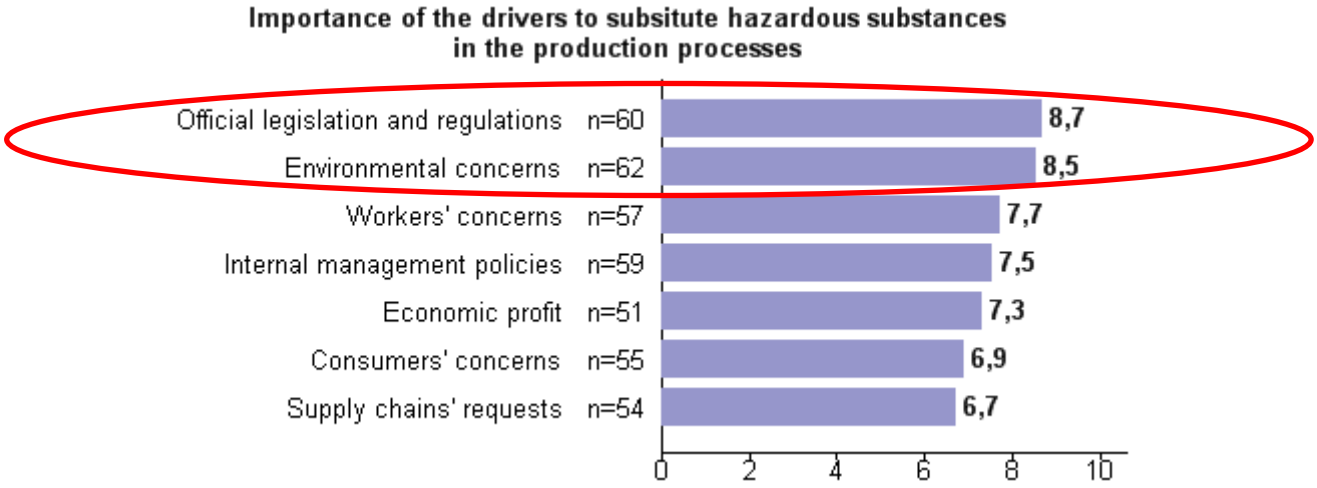
Micro:
Among micro sized companies, the main motivators are environmental concerns and official legislation/regulations. Micro sized companies motivators mean evaluations are described by the following graph.



Small:
Among small sized companies, the main motivators are environmental concerns and official legislation/regulations. Small sized companies motivators mean evaluations are described by the following graph.



Medium:
Among medium sized companies, the main motivators are official legislation/regulations and environmental concerns. Small sized companies motivators mean evaluations are described by the following graph.

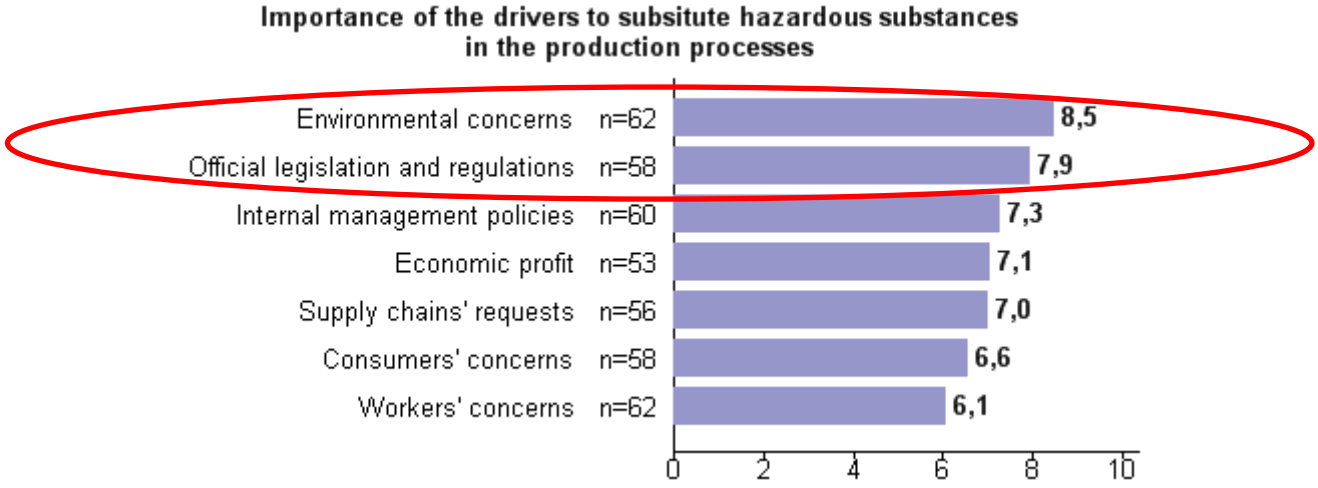


As seen from the graphs describing motivators mean evaluations of different sized companies, all sized companies see environmental concerns and official legislation/regulations as the main motivators for

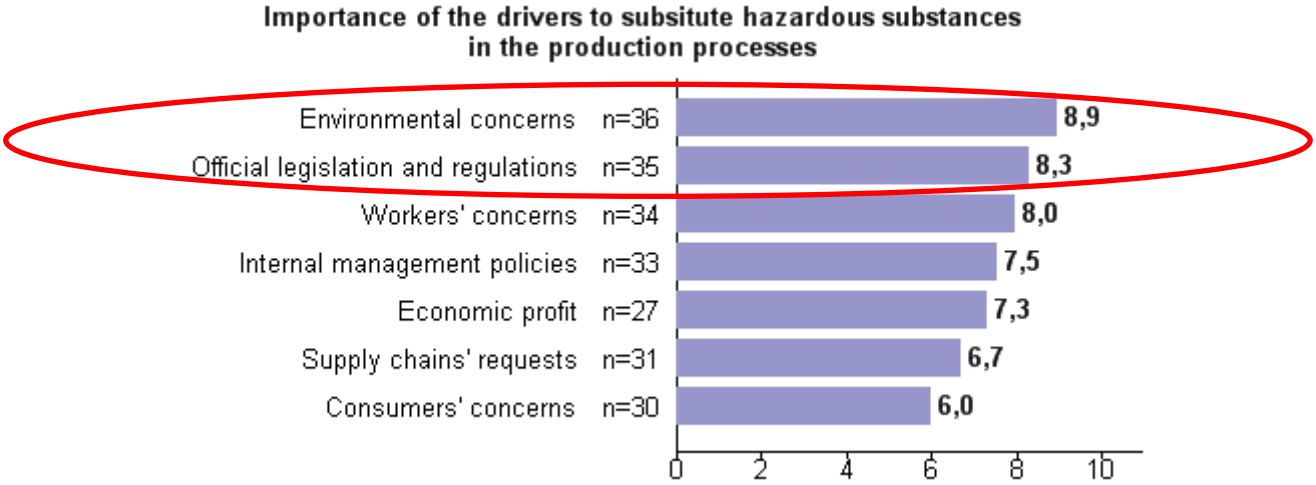
substituting hazardous substances. **Furthermore, when company size increases, the mean evaluation increases for every motivator.** Also, different sized companies have on average evaluated the drivers almost the same way.

Sectors:
Under this subsection only the main sectors are included.

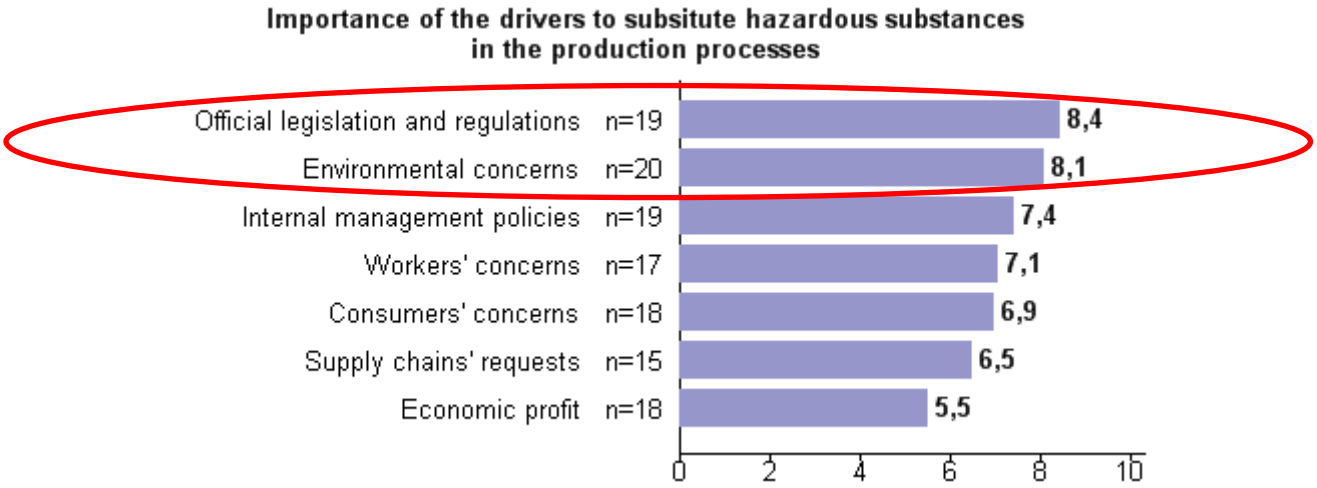
Construction company:
The following graph describes the respondent construction companies mean evaluation of the importance of drivers to substituting hazardous substances in their production processes.



Metal processing:
The following graph describes the respondent metal processing companies mean evaluation of the importance of drivers to substituting hazardous substances in their production processes.

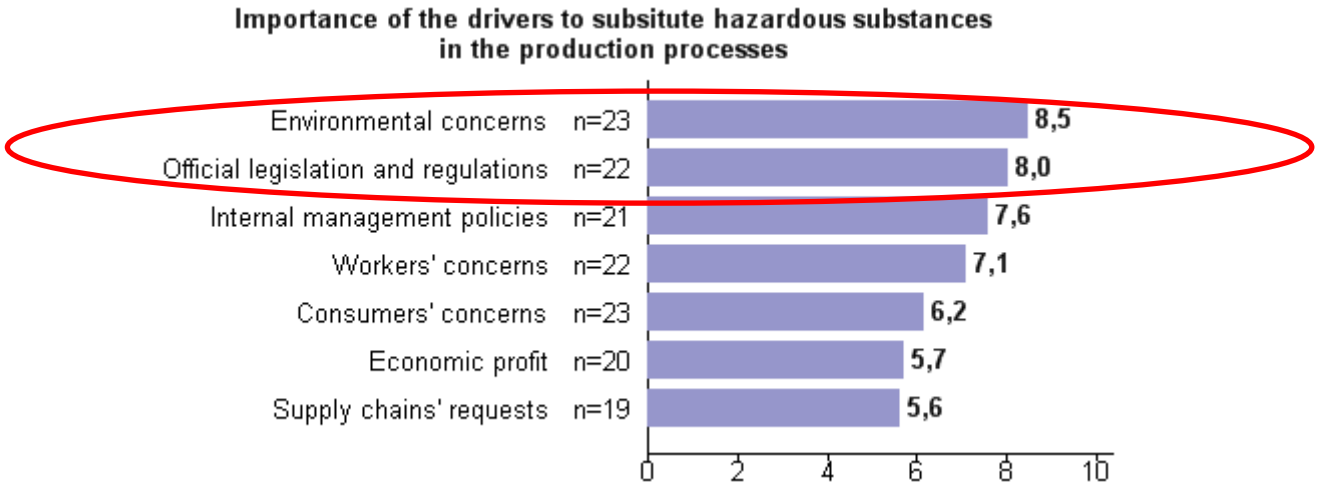


Textile:
The following graph describes the respondent textile companies mean evaluation of the importance of drivers to substituting hazardous substances in their production processes.



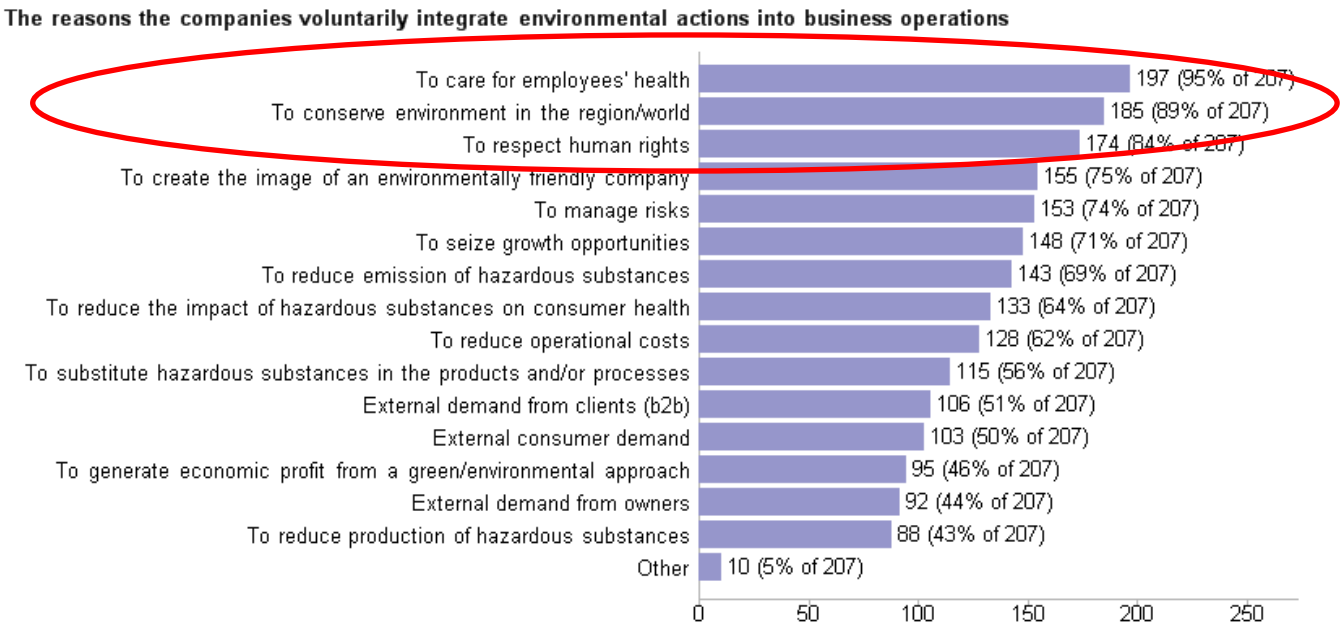
Furniture:

The following graph describes the respondent furniture companies mean evaluation of the importance of drivers to substituting hazardous substances in their production processes.



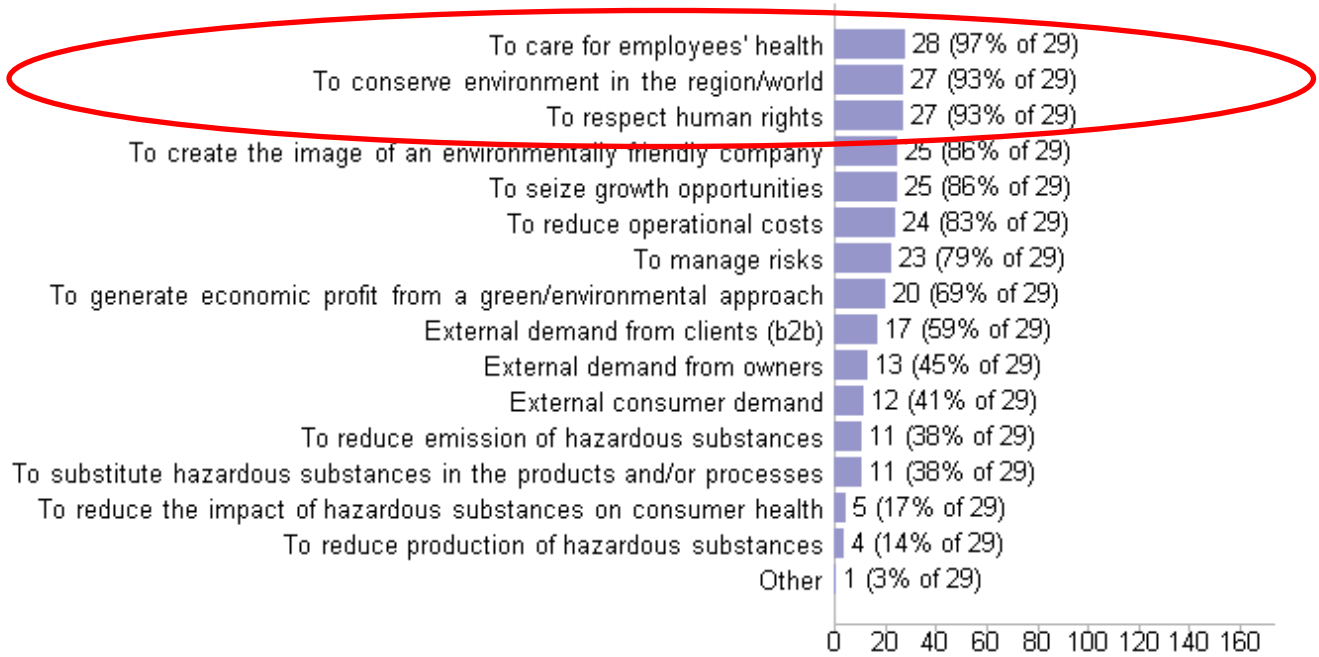
7. For what reasons do companies incorporate voluntary environmental actions into their production processes?

The most frequent reasons why respondent companies incorporate voluntary environmental actions into production processes are to care for employees' health, to conserve environment in the region/world and to respect human rights. The frequency of reasons is described by the following graph.



Estonia:
Among Estonian respondent companies, the most frequent reasons the companies voluntarily integrate environmental actions into business operations are to care for employees' health, to conserve environment in the region/world and to respect human rights. The frequency of reasons is described by the following graph.

The reasons the companies voluntarily integrate environmental actions into business operations



Latvia:
Among Latvian respondent companies, the most frequent reasons the companies voluntarily integrate environmental actions into business operations are to care for employees' health, to respect human rights and to conserve environment in the region/world. The frequency of reasons is described by the following graph.

The reasons the companies voluntarily integrate environmental actions into business operations

Lithuania:
Among Lithuanian respondent companies, the most frequent reasons the companies voluntarily integrate environmental actions into business operations are to care for employees' health and to conserve environment in the region/world. The frequency of reasons is described by the following graph.

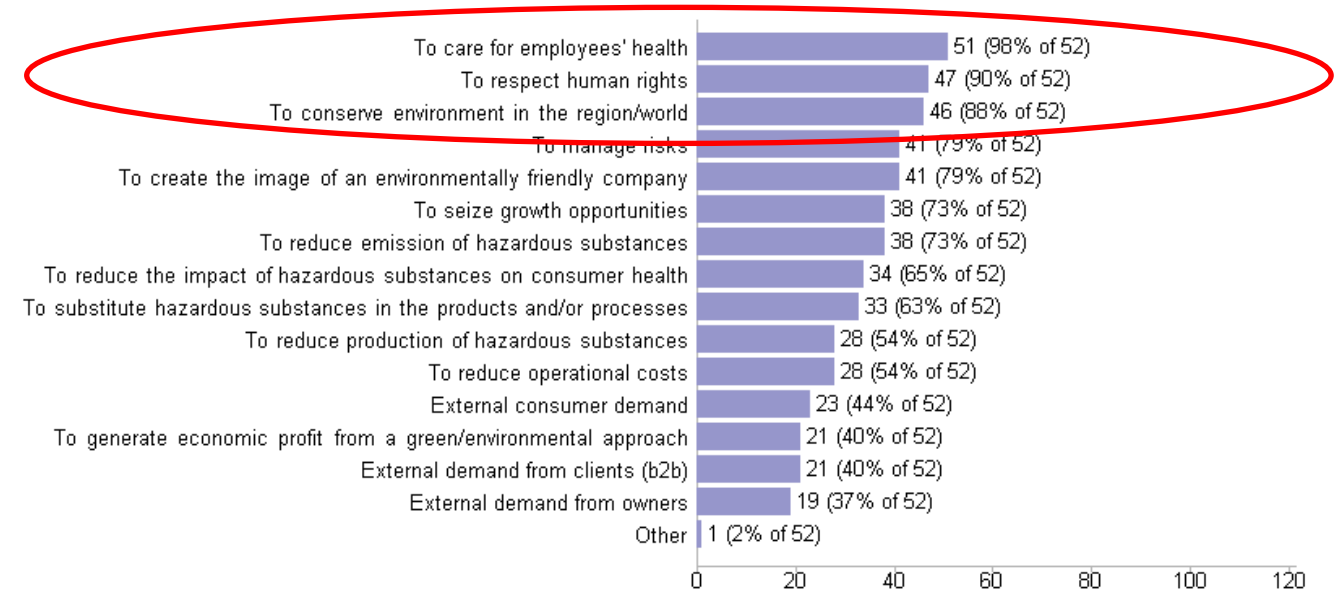
The reasons the companies voluntarily integrate environmental actions into business operations

As seen from the graphs, different country's reasons for integrating environmental actions voluntarily into their business operations are to do with their employees health and their local environment. Compared to the overall frequency graph, there was no significant deviation of top reasons among the countries.

Micro:

Among the micro sized respondent companies, the most frequent reasons are to care for employees' health and to respect human rights. After that came the reason to conserve environment in the region/world. The frequency of reasons and respective pecentage is described by the following graph.

The reasons the companies voluntarily integrate environmental actions into business operations

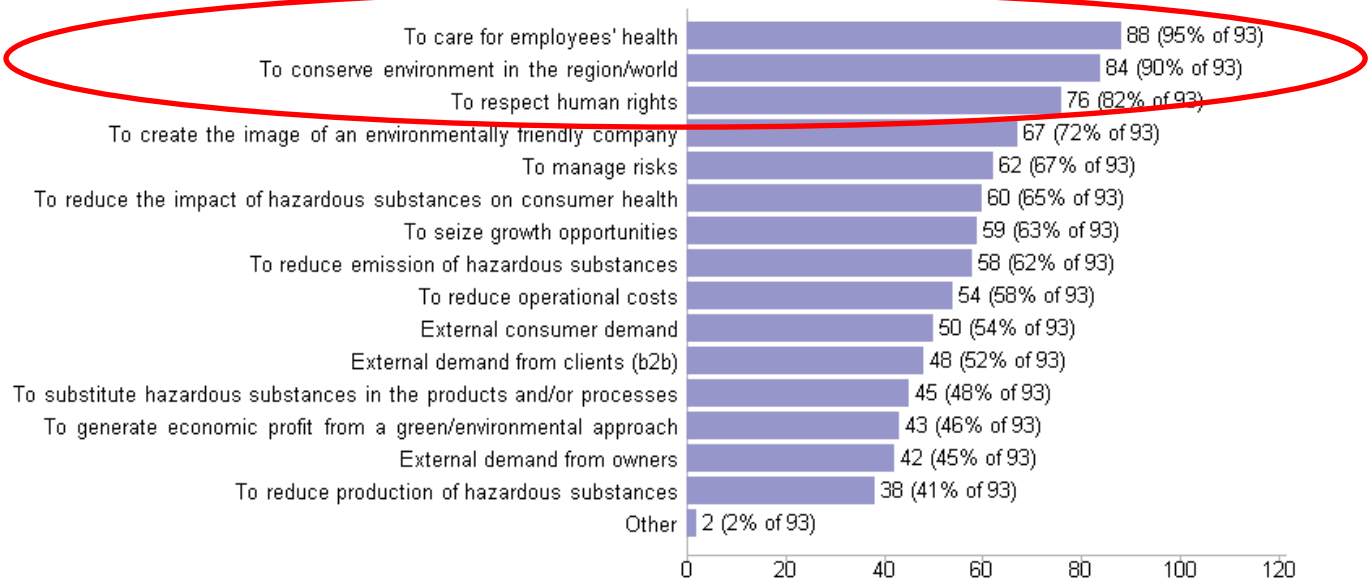


As seen from the graph above, almost all who answered this question chose the answer which relates to their employees' health and well-being.

Small:

Among the small sized respondent compaies, the most frequent reasons are to care for employees' health and to conserve environment in the region/world. The frequency of reasons is described by the following graph.

The reasons the companies voluntarily integrate environmental actions into business operations

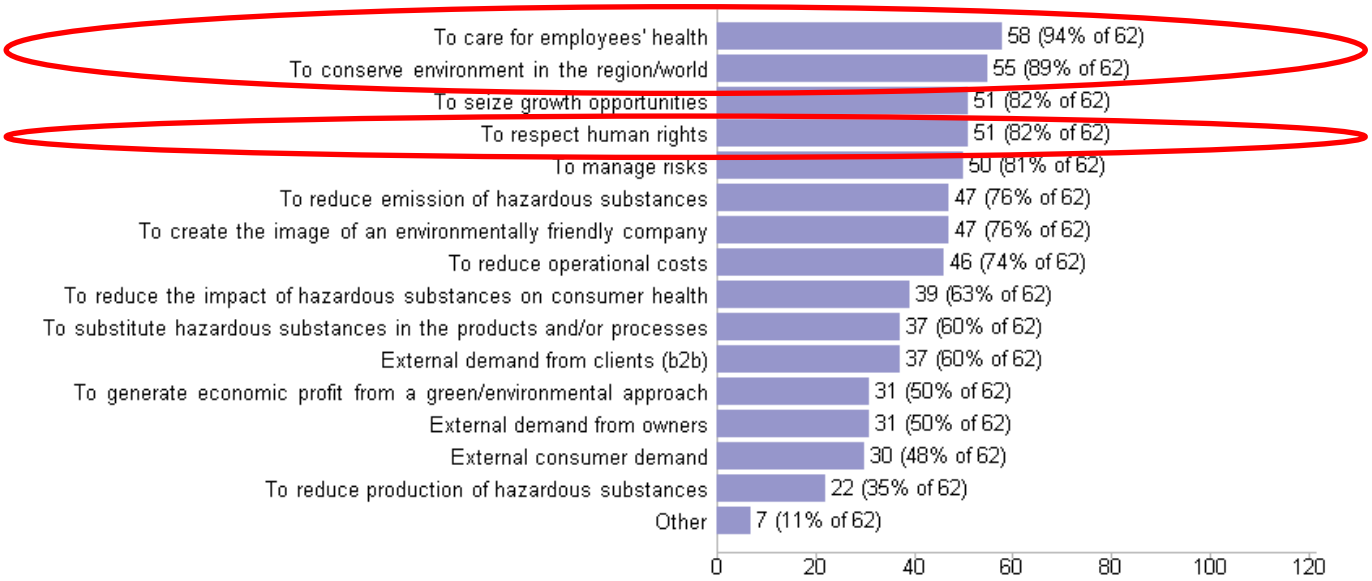


As seen from the graph above, the reason to respect human rights is still a frequent reason, however it has lower frequency compared to micro company respondents.

Medium:

Among the medium sized respondent companies, the most frequent reasons are to care for employees' health and to conserve environment in the region/world. The frequency of reasons is described by the following graph.

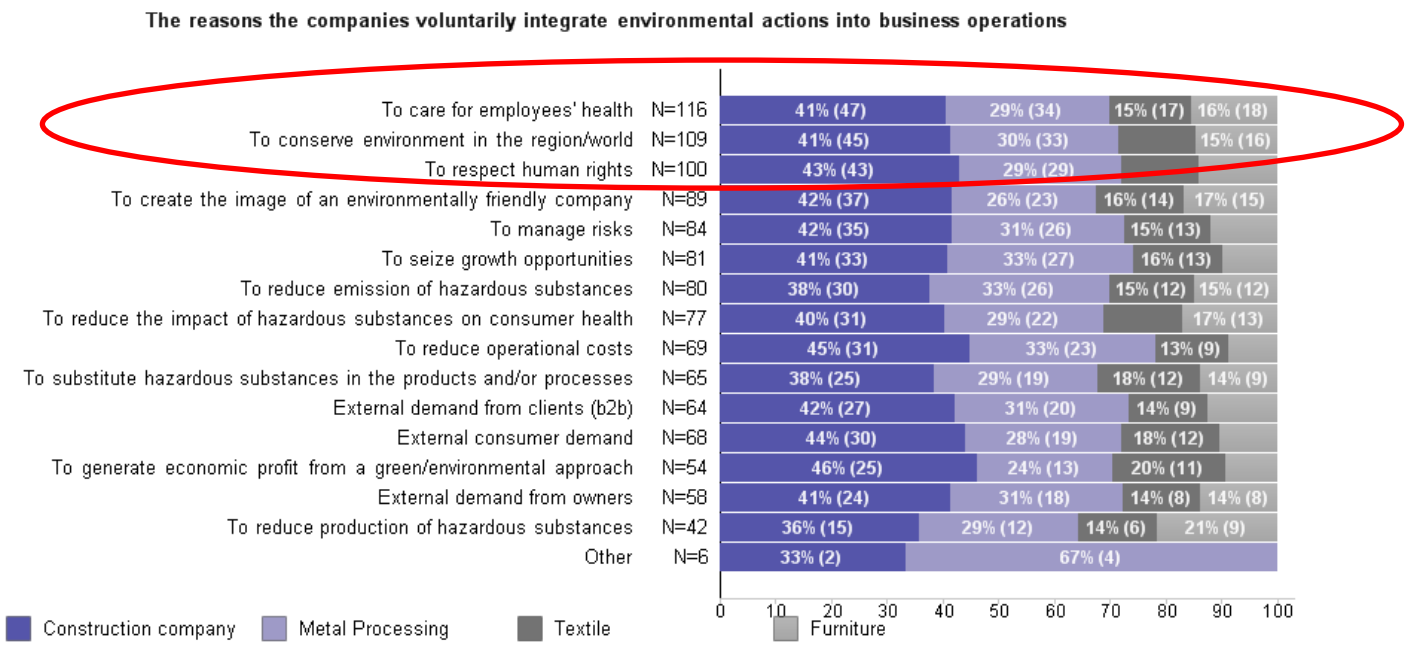
The reasons the companies voluntarily integrate environmental actions into business operations



As seen from the graph above, the reason to respect human rights is sharing the same frequency with the reason to seize growth opportunities. In medium sized companies employees' well-being is still important, however company's growth is starting to become an important reason.

Sectors:

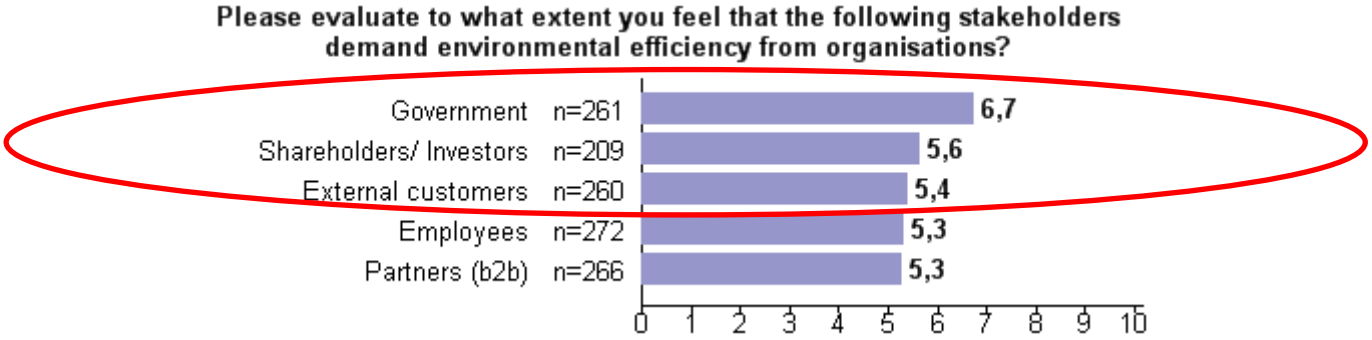
The following graph describes construction company, metal processing, textile and furniture sectors voluntary reasons to integrate environmental actions into their business operations.



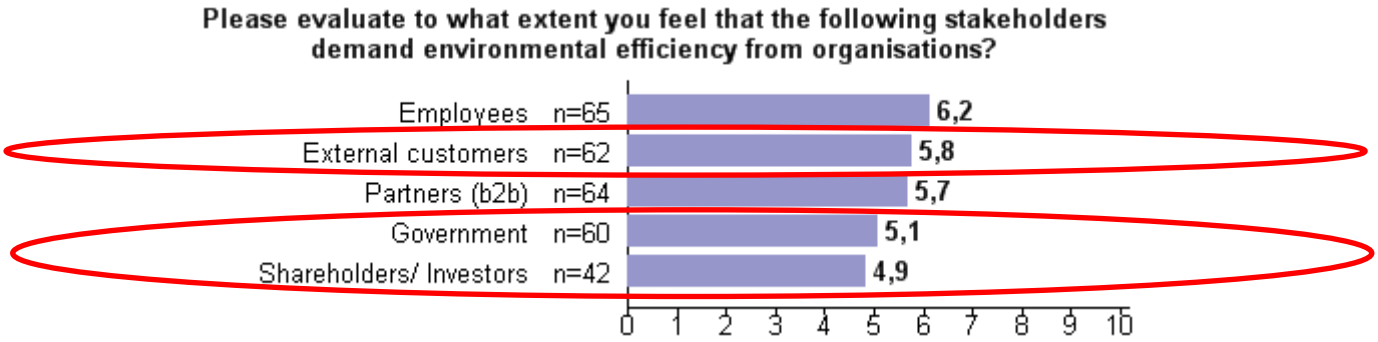
The percentage on the graph shows the proportion of how many times a given sector chose the corresponding reason.

8.Do SMEs in the Baltics feel pressure from the external stakeholders to be more environmentally friendly?

From the graph below could be seen that the most important actor or driver of environmentally friendly attitude is the government followed by shareholders and customers.



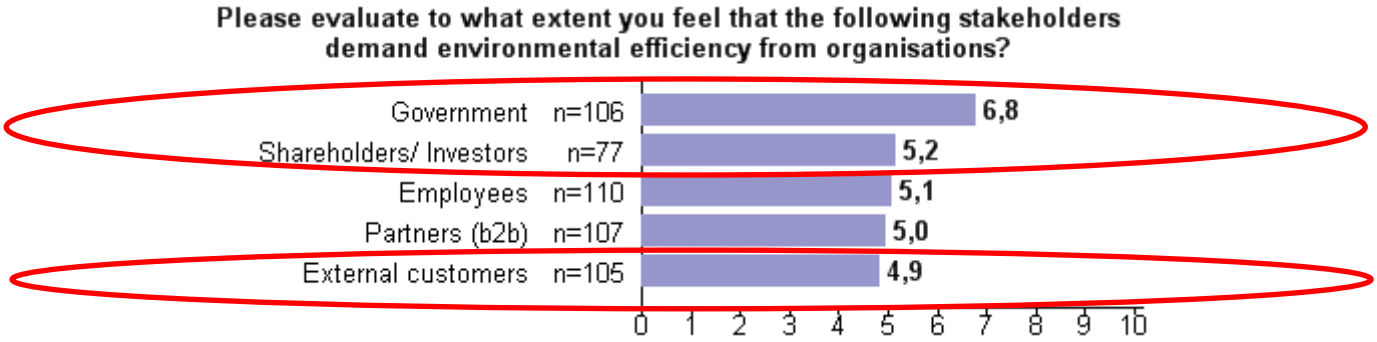
Estonia*:*
Among Estonian respondents, the companies felt more pressure from employees, external customers and business partners to be more environmentally friendly. The mean evaluations of the pressure among Estonian respondent companies are described by the following graph.



As seen from the graph above, the environmental stakeholders are very different in Estonia compared to other Baltic countries. Furthermore, from Estonia were the least amount of answers, meaning Estonian respondents evaluations affect the Baltic overall the least.

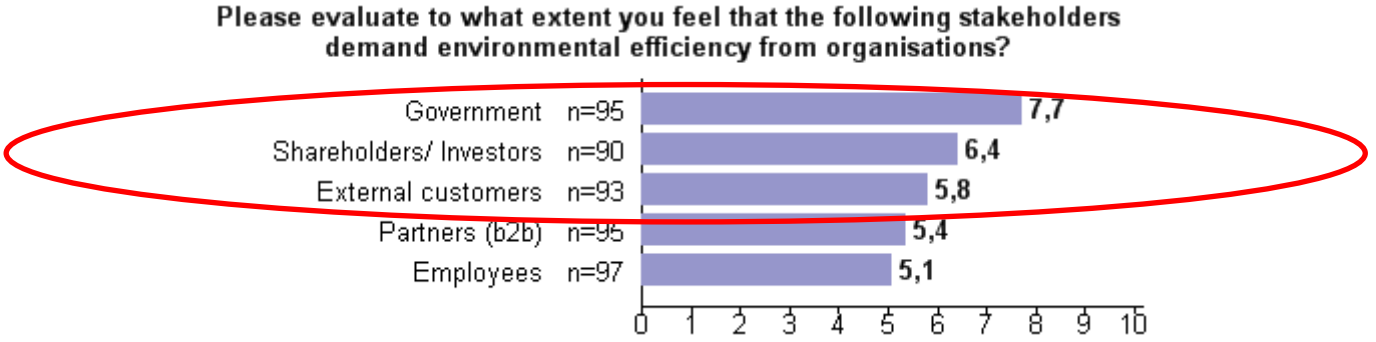
Latvia:

Among Latvian respondents, the companies felt the most pressure to be more environmentally friendly from the government. The mean evaluations of the pressure among Latvian respondent companies are described by the following graph.



As seen from the graph above, Latvian respondents evaluated the rest of the stakeholders pressure to be at a similar level.

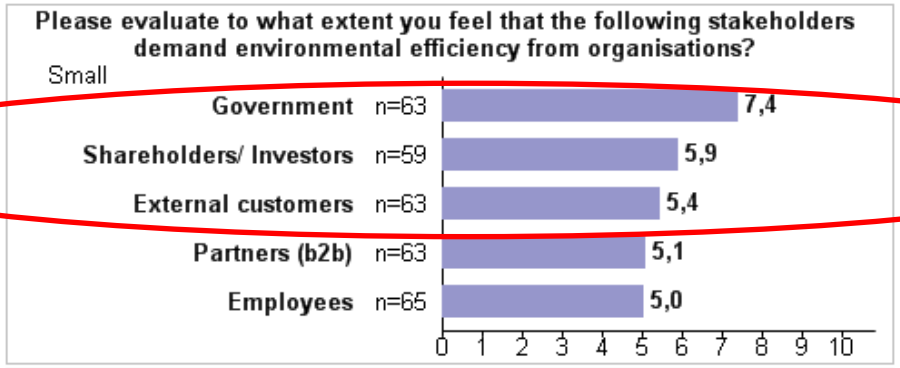
Lithuania:
Among Lithuanian respondents, the companies feel the most pressure to be more environmentally friendly from the government. The mean evaluations of the pressure among Lithuanian respondent companies are described by the following graph.6

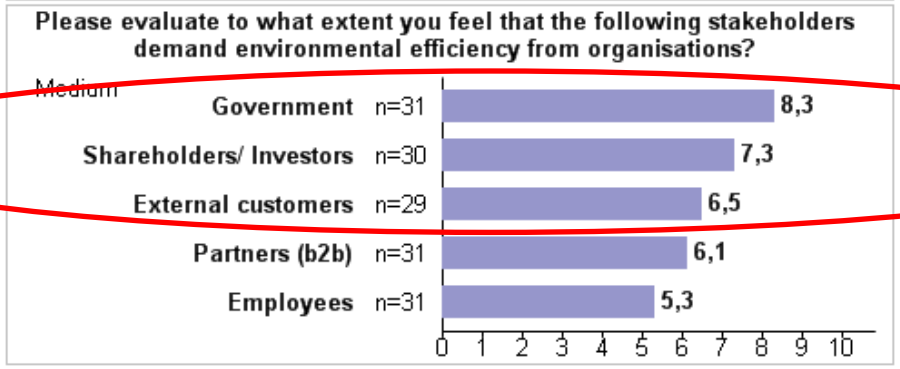


As seen from the graph above, the pressure from government is evaluated to be rather high compared to pressure from employees.

Statistically different are Estonian, Latvian and Lithuanian mean evaluations to the extent they feel the **governments** demand of environmental efficiency. Statistically different are Estonian and Latvian as well as Estonian and Lithuanian mean evaluations to the extent they feel the **employees** demand of environmental efficiency.

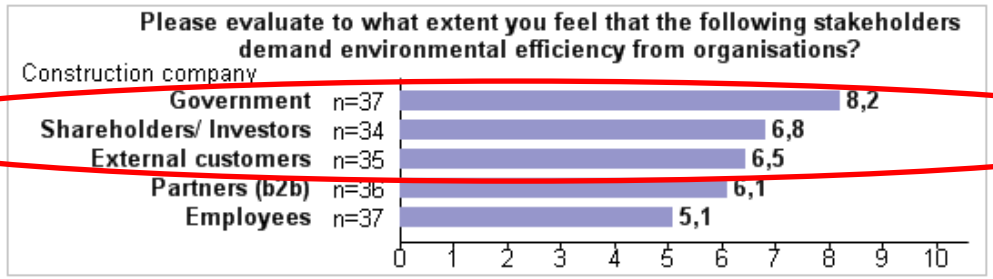
Size:
Among micro sized companies only one answered the corresponding question. Because of this the micro sized companies evaluations are not presented. Among small and medium sized companies, the most pressure is felt from the government. The mean evaluations of stakeholders demand for environmental efficiency of different sized companies are described by the following graph. Shareholders are more important pressure group for medium sized companies compared to small companies..

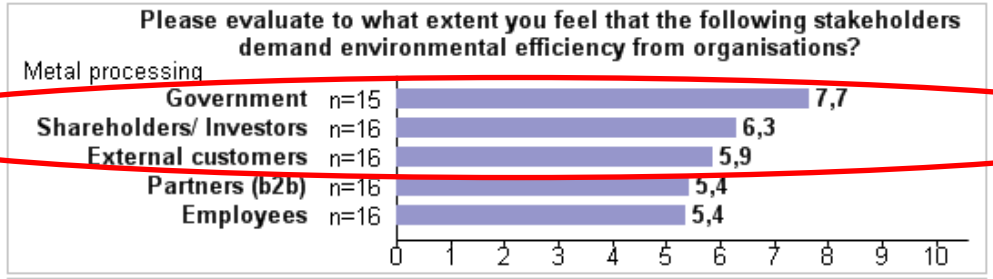


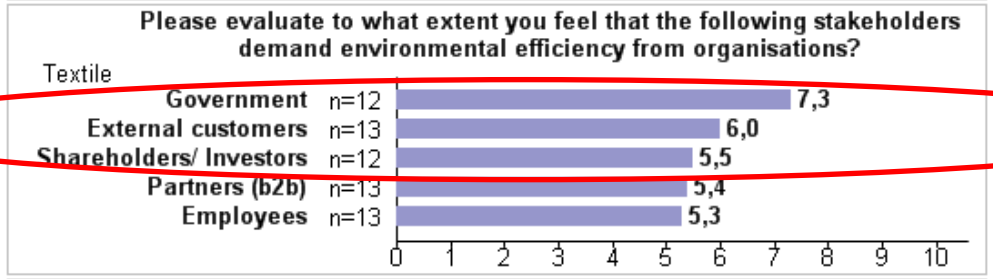


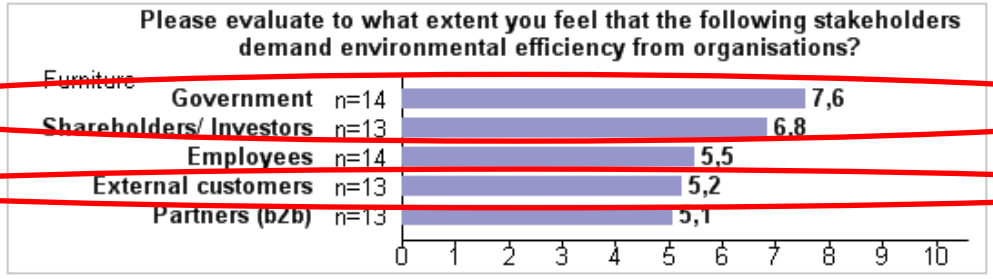
Sectors:

The mean evaluations of stakeholders demand for environmental efficiency of the four main sector companies are described by the following graph.





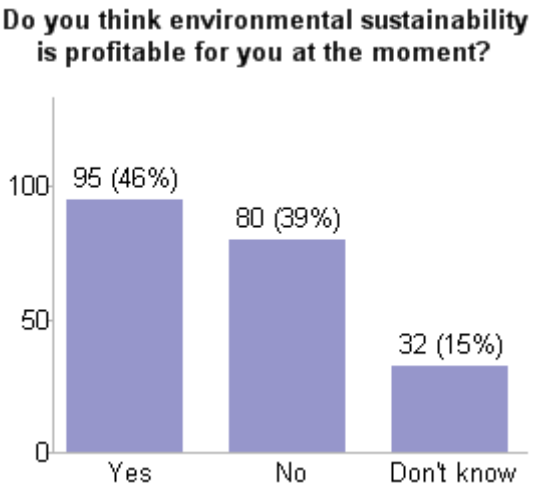




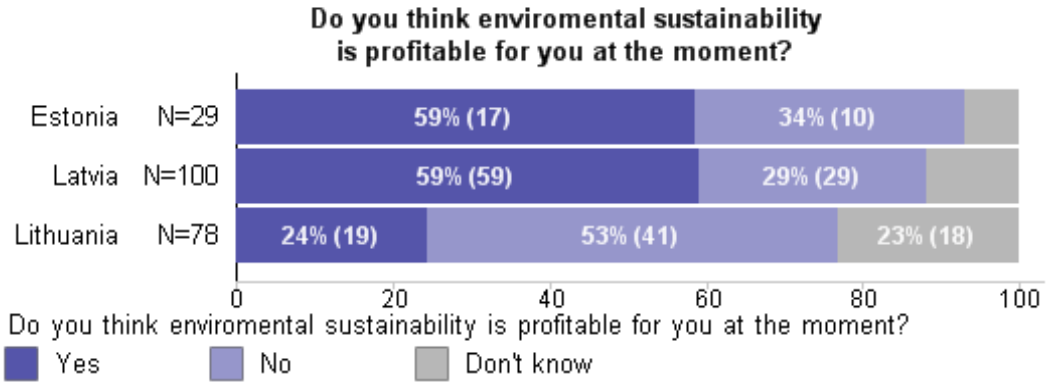
9.Do the companies find environmental sustainability profitable at the moment and in the future?

The following graphs describe whether companies see environmental sustainability profitable at the moment and in 5 years.

Now:
Almost half of the respondents, who aswered this question, thought environmental sustainability to be profitable at the moment. However, there are a lot of those companies, who think it is not profitable at the moment. Some do not know. This is described by the following graph.

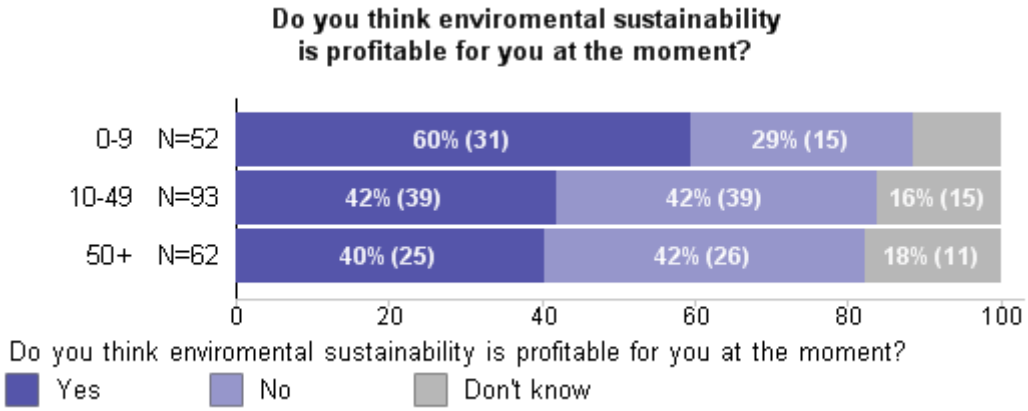


Profitable now by location:
The following graphs describe the opinion of Estonian, Latvian and Lithuanian companies, who answered to this question, whether environmental sustainability is profitable at the moment. Few Estonian respondents answered this question, but among those more see environmental sustainability to be profitable at the moment. Latvian respondents view the profitability of environmental sustainability similar in proportion to Estonian respondents. Latvian respondents think it is profitable at the moment. However, majority of Lithuanian respondents do not think environmental sustainability is profitable at the moment.



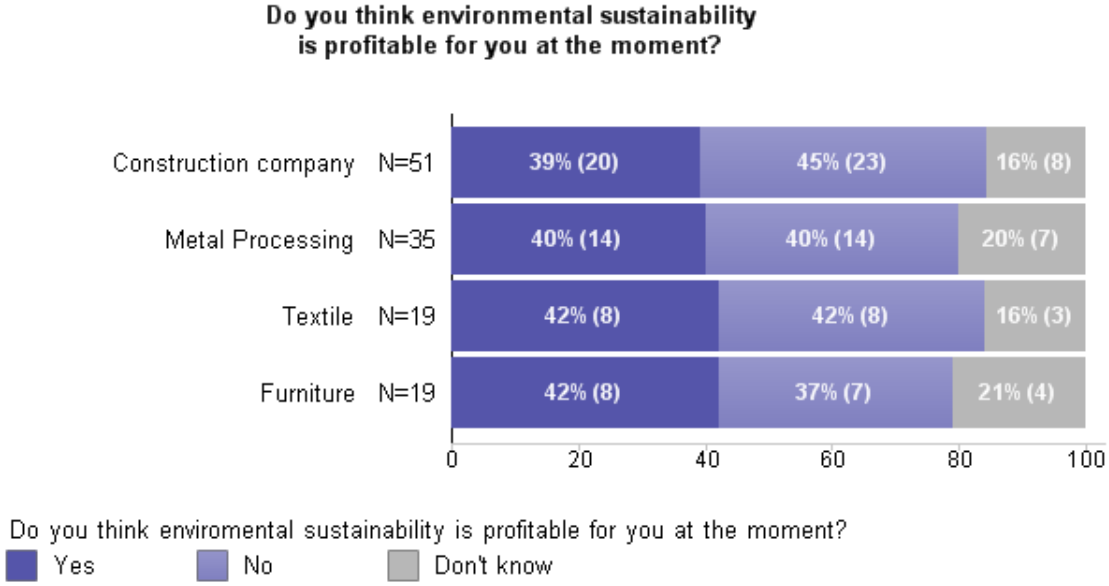
The frequency of the respondents from Lithuania, who think **environmental sustainability is profitable** at the moment is statistically different from Estonian and Latvian respondents frequencies.

Profitable now by size:
The following graphs describe the opinion of micro, small and medium companies, who answered to this question, whether environmental sustainability is profitable at the moment. As seen from the graphs, small and medium companies have answered similarly. Among small and medium companies around 40% think that it is and around 40% think that it is not profitable at the moment. However, among micro companies, the number of those who think it is profitable at the moment is higher than those who do not.



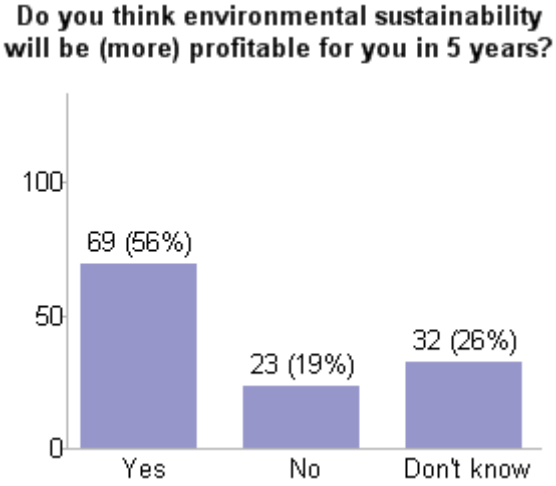
Probitable now by sector:

The following graph describes the opinions from the main sectors whether environmental sustainability is profitable at the moment.



In 5 years:

More than half of the respondent companies, who answered this question, think that environmental sustainability will be (more) profitable in the near future. Furthermore, the number of respondents, who think it will not be profitable, decreased and those who do not know increased, compared to the current situation graph (under subsection *Now*). The opinon of profitability of environmental sustainability is described by the following graph.



Profitable in 5 years by location:

The following graphs describe the opinion of Estonian, Latvian and Lithuanian companies, who answered to this question, whether environmental sustainability is profitable in 5 years. As seen from the graphs, companies from the Baltics think that environmental sustainability will be (more) profitable in 5 years. Among Latvian and

Lithuanian respondents the percentage of answers „no“ is higher than among Estonian respondents. However, there are very few respondents from Estonia, who answered to this question.

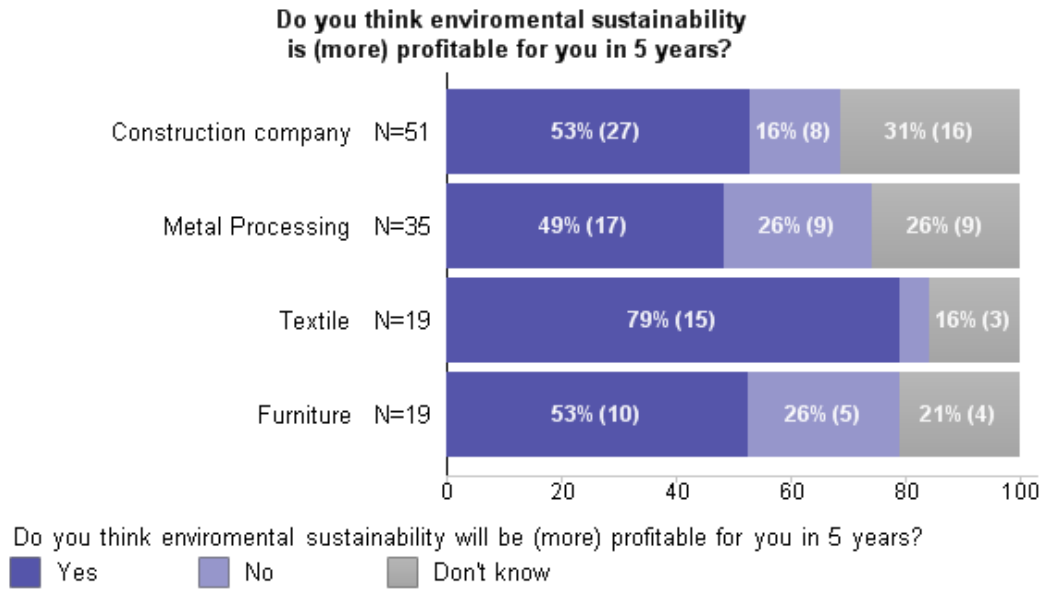
All of the countries' respondent frequencies of those, who think **environmental sustainability is profitable in 5 years** are statistically similar. Looking at the graph indicates that Estonian respondent frequency might be different. However, due to the low number of respondents, statistical difference could not be proven.

Profitable in 5 years by size:

The following graphs describe the opinion of micro, small and medium companies, who answered to this question, whether environmental sustainability is profitable in 5 years. As seen from the graphs, all sized companies agree that environmental sustainability will be (more) profitable in 5 years. Those who do not know, if it will be (more) profitable in 5 years, are as many or more than those who think that it will not be (more) profitable.

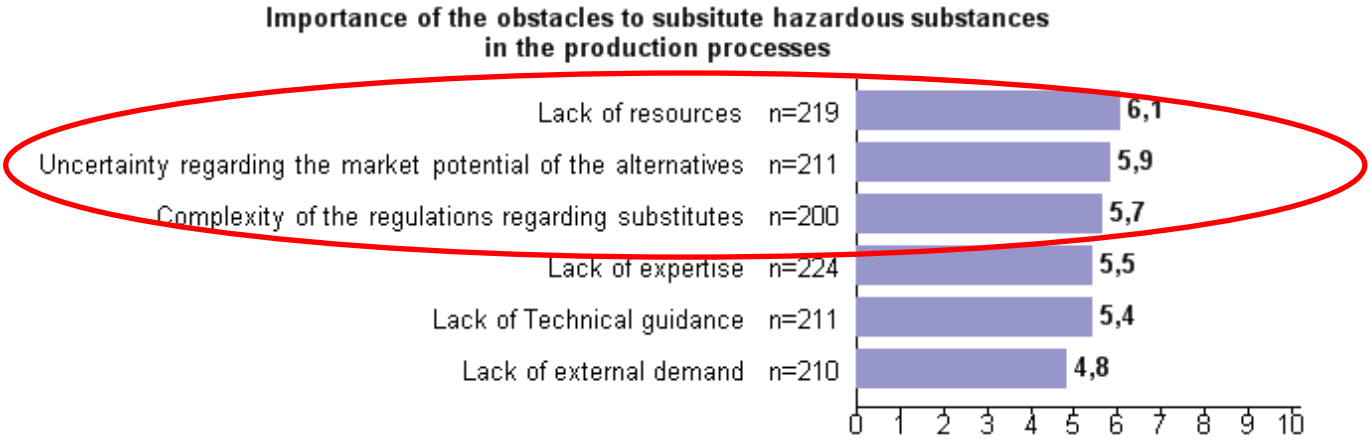
Profitable in 5 years by sector:

The following graph describes the opinions from the main sectors whether environmental sustainability is profitable in 5 years. Textile companies are the most optimistic about profitability of environmental sustainability in the future.



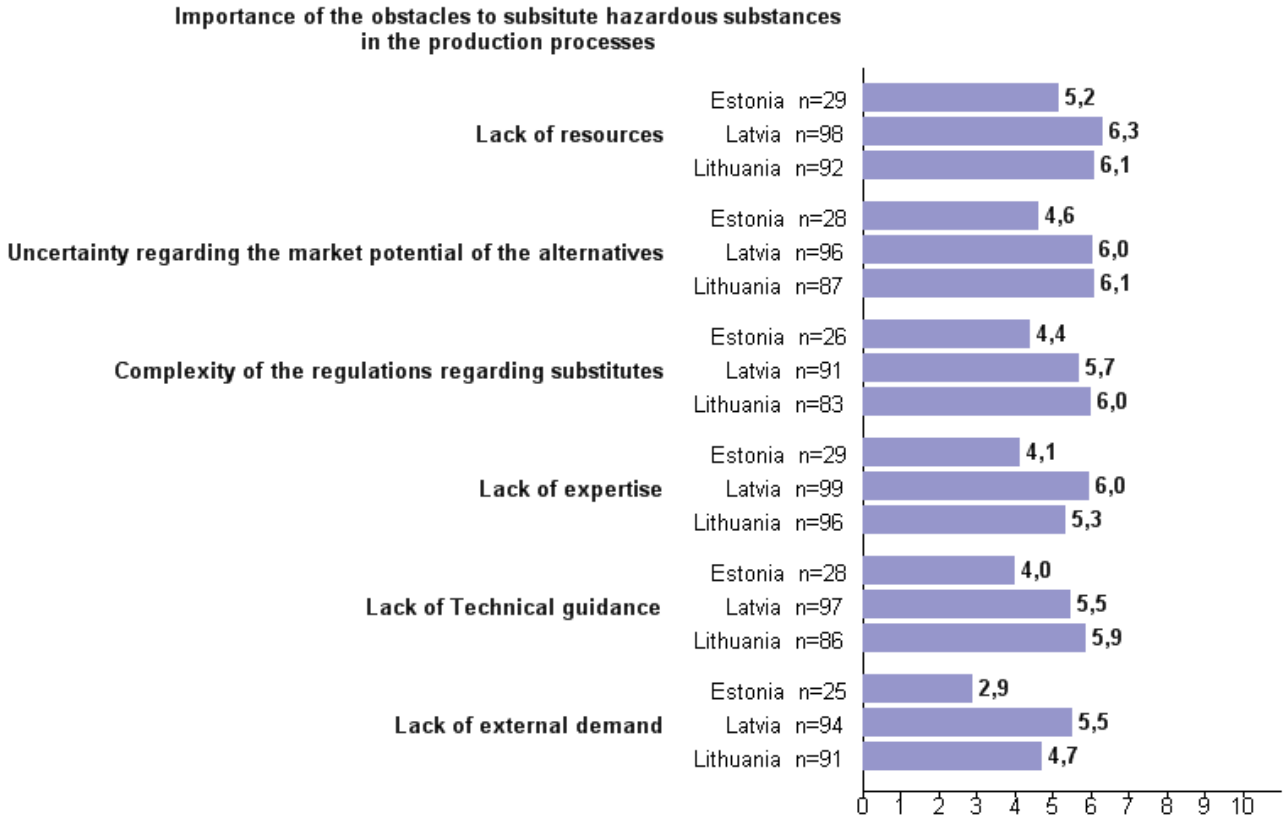
10. What are the main barriers to taking up voluntary environmental actions?

In the Baltics, the main barrier to taking up voluntary environmental actions is the lack of resources, according to the respondent companies. The next barriers are the uncertainty regarding the market potential of alternatives and complexity of the regulations regarding substitutes. The means of obstacle importance evaluation are described by the following graph.



Location:

For Estonian, Latvian and Lithuanian respondent companies the lack of resources is the most important obstacle from the given obstacles. For Lithuanian respondents, uncertainty regarding the market potential of the alternatives is also evaluated to the same level as lack of resources. The mean evaluations of obstacles in the Baltic countries are described by the following graph.

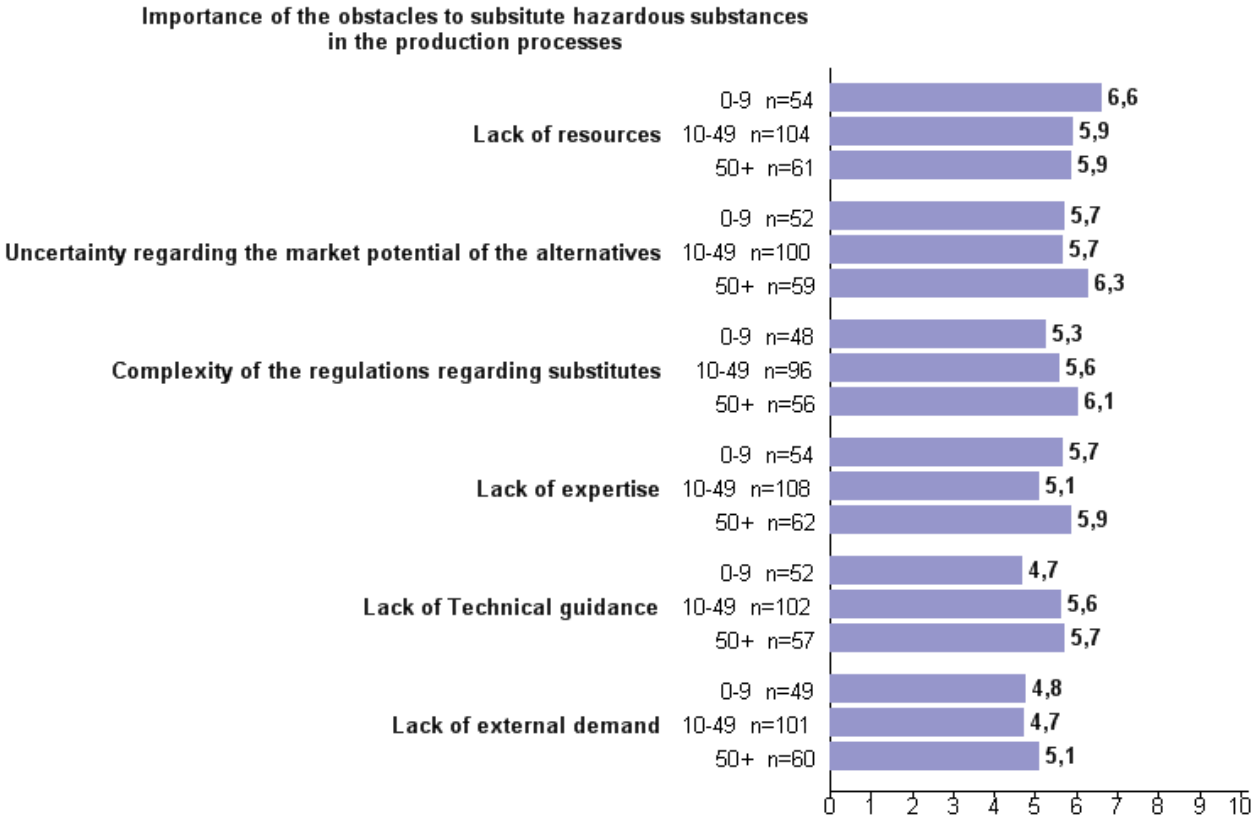


Estonian respondents' mean evaluation is statistically different from Latvian and Lithuanian respondents' mean evaluations in the following questions: **lack of expertise, lack of technical guidance and lack of external demand**.

The mean evaluation of the **complexity of the regulations regarding substitutes** is statistically different in Estonia and Latvia. However, there is no statistical difference between Estonian and Lithuanian evaluation according to the Benjamin-Hochbergs procedure. As Lithuanian result 6,0 is even higher than Latvian 5,7, therefore Estonian and Lithuanian results could still be taken as statistically different.

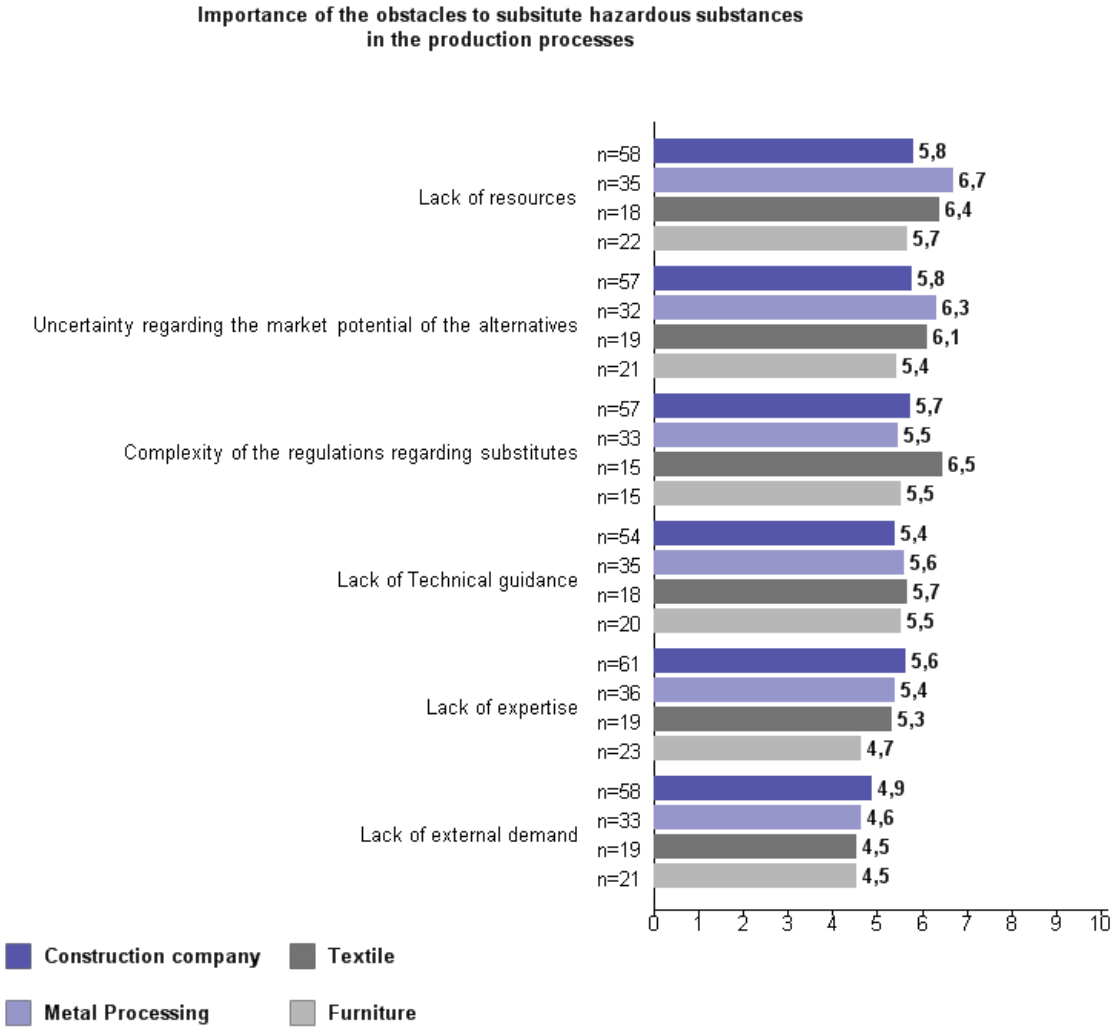
Size:

For micro and small sized companies the lack of resources is the most important obstacle from the given obstacles. For medium sized companies the uncertainty regarding the market potential of the alternatives is evaluated to be the most important obstacle. The mean evaluations of obstacles from different sized companies are described by the following graph.



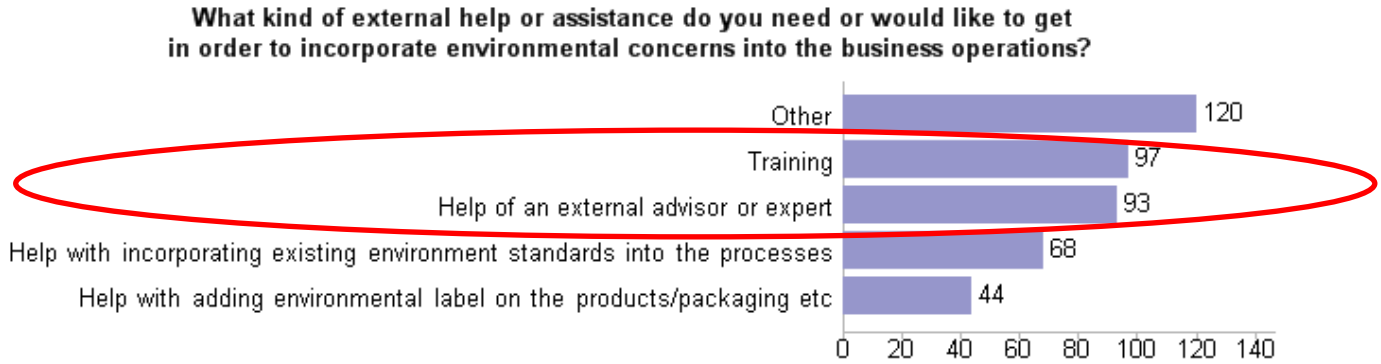
Sectors:

The mean evaluations of obstacles from the main sectors are described by the following graph.



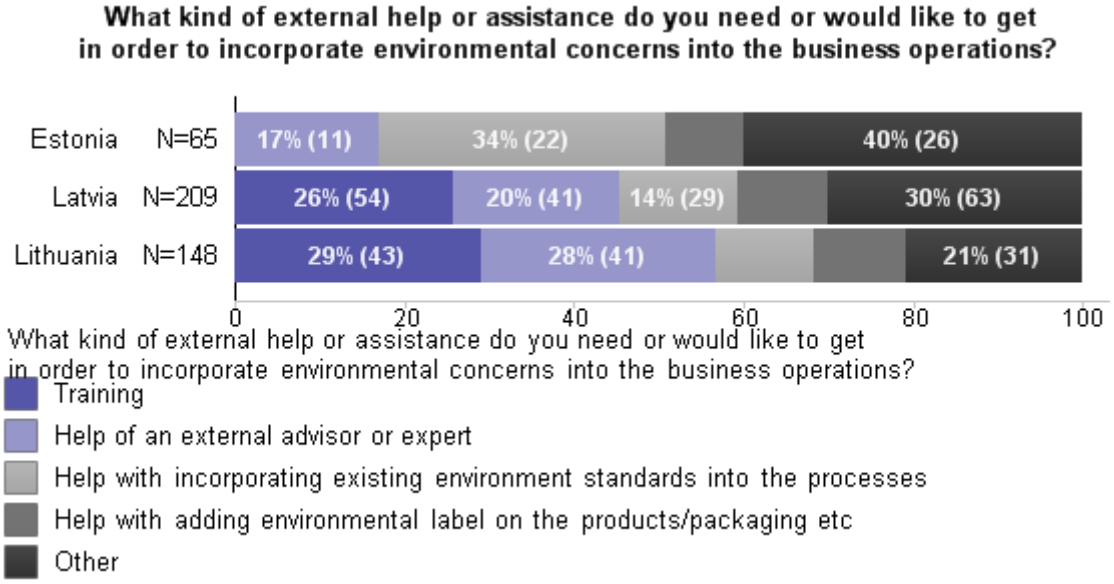
11. What kind of knowledge are SMEs lacking and what kind of assistance do they need in order to incorporate environmental actions into the production processes?

Training and help of an external advisor or expert are the most frequent answers to the corresponding question. The frequencies of needed help or assistance are described by the following graph.



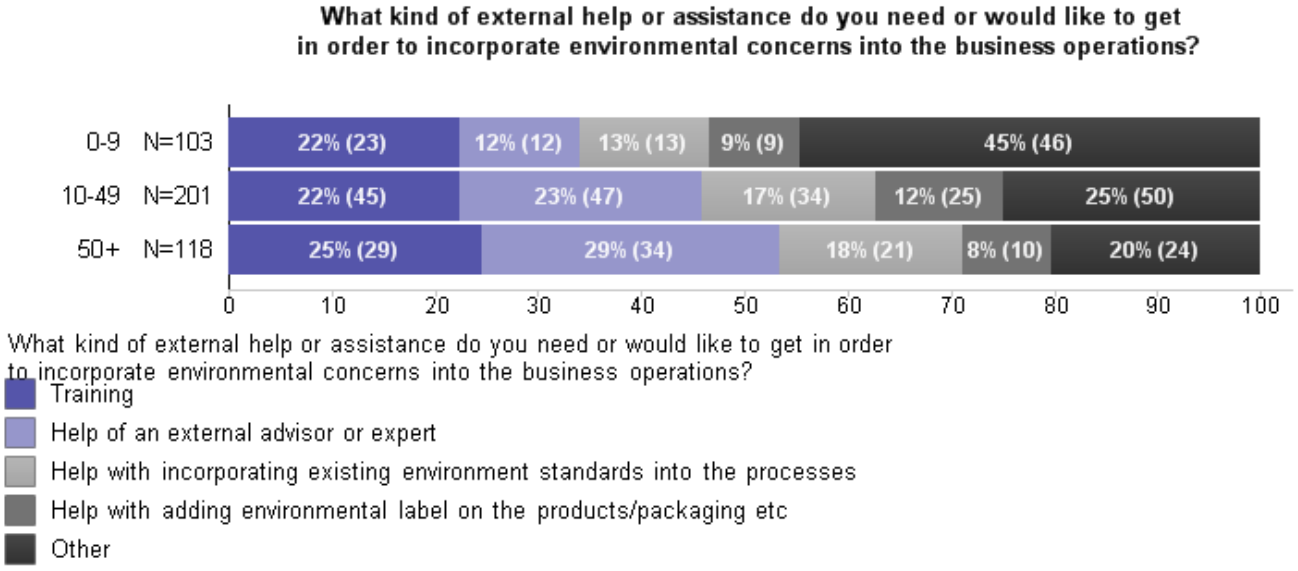
Location:

Latvian and Lithuanian respondent companies answered to the corresponding question proportionally similarly. Any of Estonian respondent companies have not chosen the answer „Training" to the question what kind of external help or assistance is needed. However, Estonian respondents need help with incorporating existing environmental stantards into the processes proportionally more than Latvian and Lithuanian respondents. The frequencies of external help or assistance types of the Baltic countries respondent companies are described by the following graph.



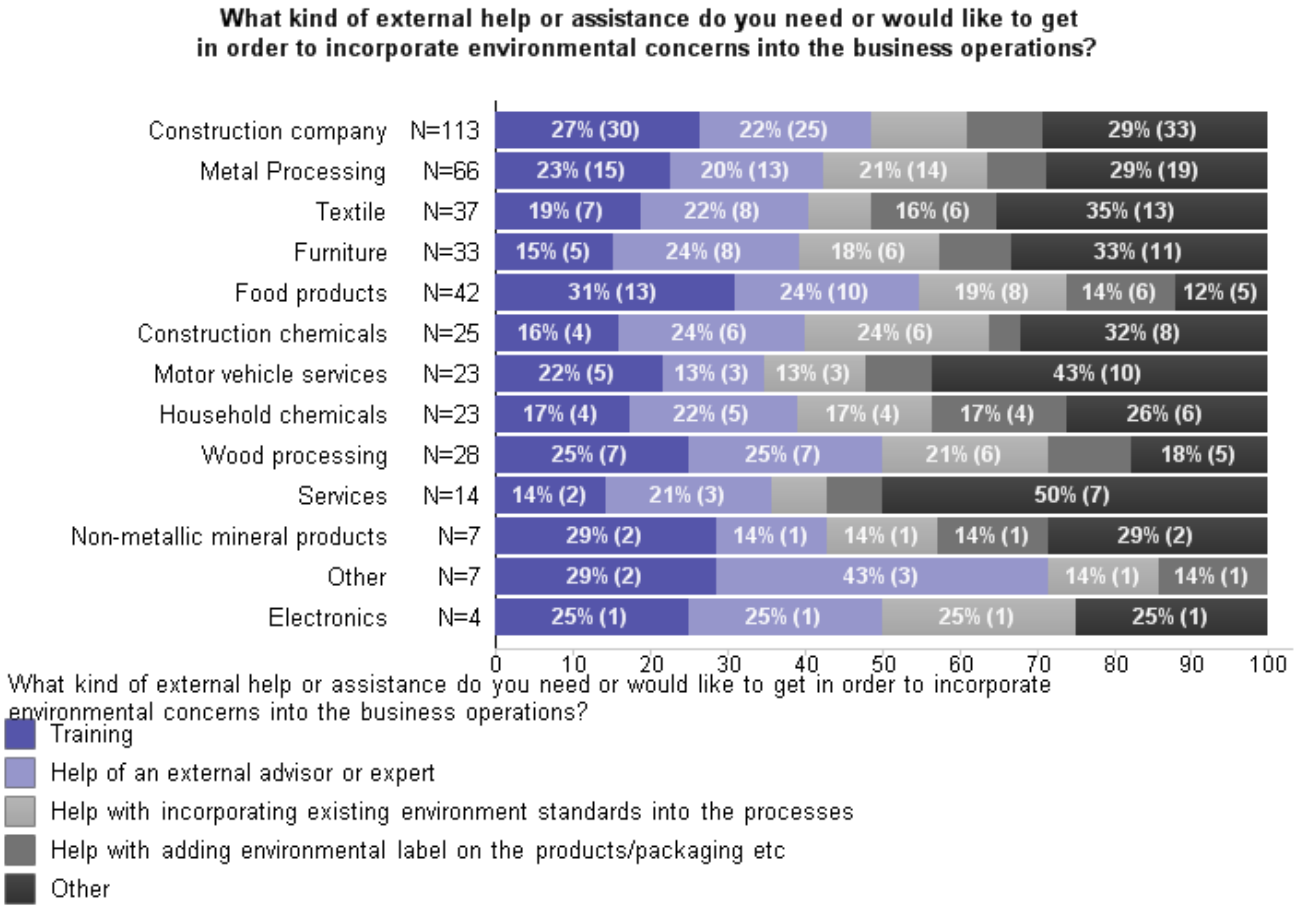
Size:

All sized companies need for training is proportionally similar. The need for help of an external advisor or expert increases with the company size. The frequencies of external help or assistance types of different sized companies are described by the following graph.



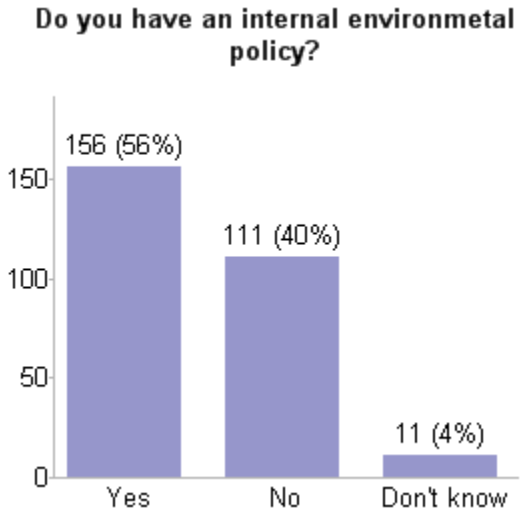
Sector:

The following graph describes what kind of assistance and in what area SMEs need.



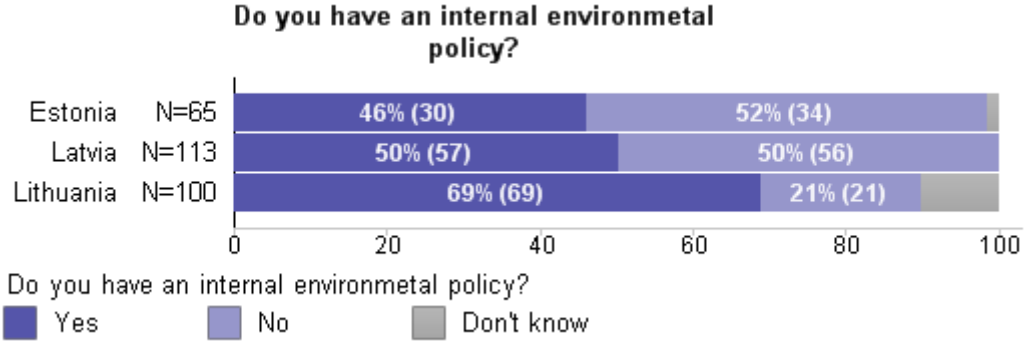
12. Do companies have internal environmental policies?

Among the respondent companies, more than half have an internal environmental policy, less than half do not have and few do not know. This is described by the following graph.



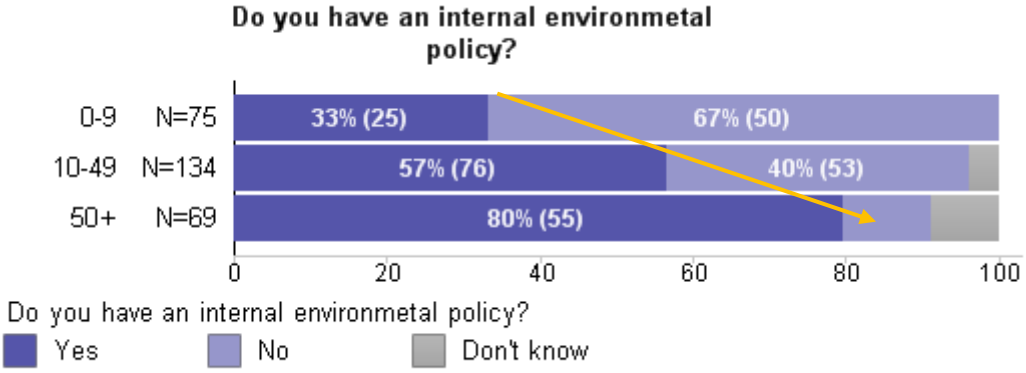
Location:

Estonian and Latvian respondent companies have answered to the corresponding question proportionally similar to each other. Around half from both countries have answered „yes“ and half „no“. Almost three quarters of Lithuanian respondent companies answered „yes“ and fifth answered „no“. The frequencies whether companies have internal environmental policies of the Baltic countries are described by the following graph.



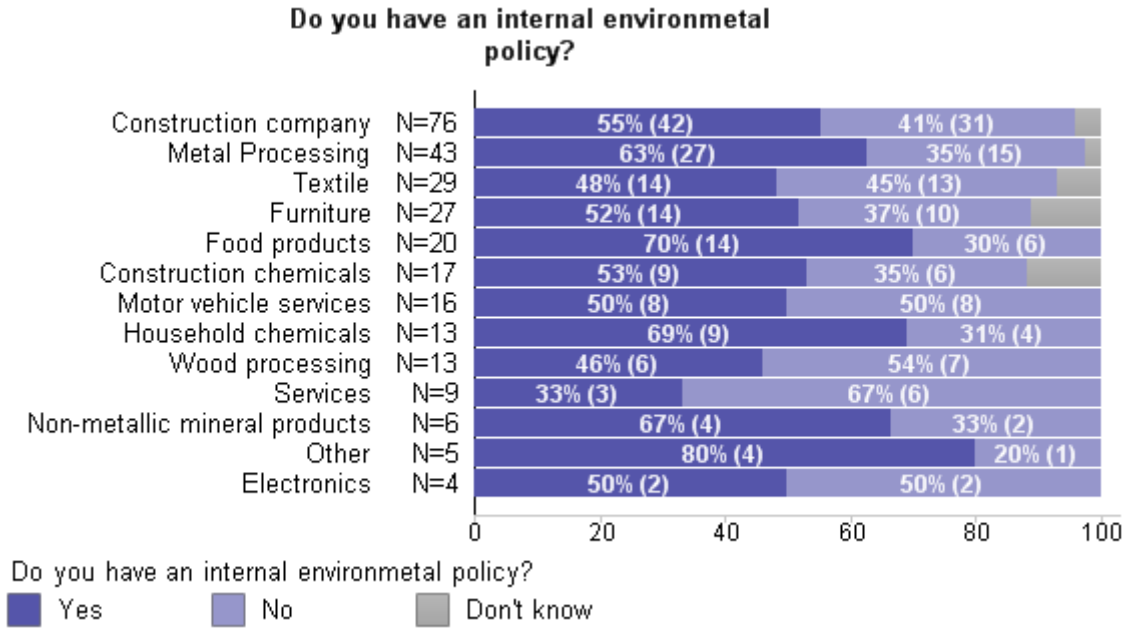
Size:

The respondent companies, that categorize as micro, only one thirds have an internal environmental policy. The rest do not. The situation among respondent companies that categorize as small is similar to the overall. More than half have, less than half do not have an internal environmental policy and few do not know, if they have or not. Among the respondent companies, who categorize as medium company, more than three quarters have an internal environmental policy. Only few do not have or do not know. This is described by the following graph. In larger companies probability of having internal environmental policy is higher.



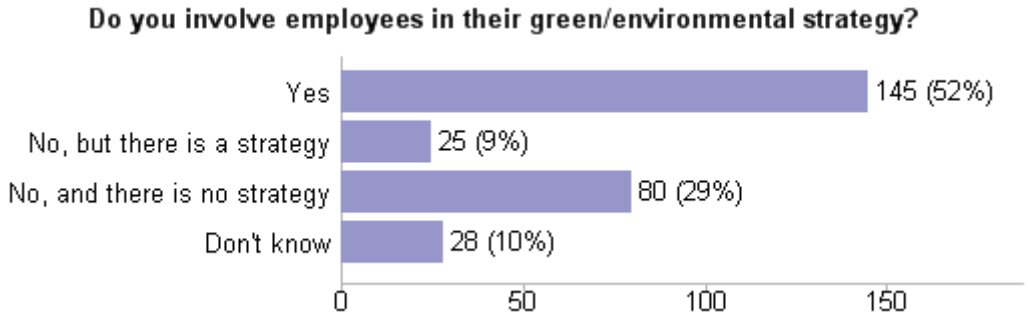
Sectors:

The frequencies whether companies have internal environmental policies of different sectors, are described by the following graph.



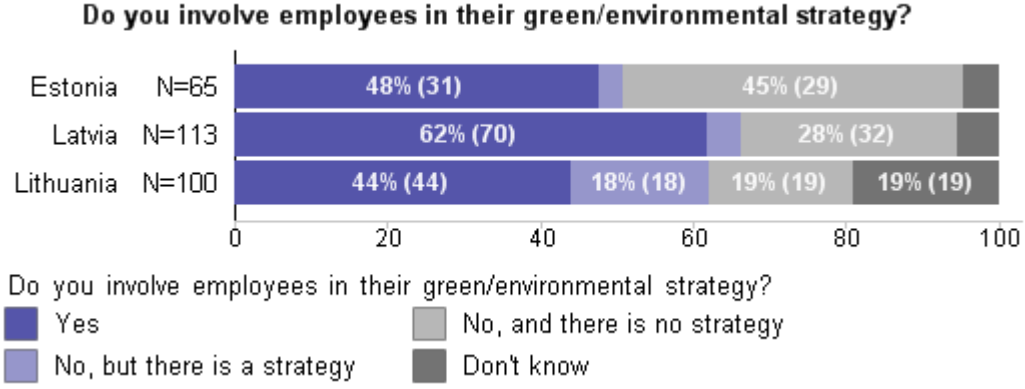
13. Are employees involved in the green strategies?

Bit more than half of the respondent companies involve their employees in an environmental strategy. Only few, who have a strategy, do not. Around third of the respondent companies do not have a strategy. Tenth of the respondents do not know, if they involve employees in their green strategy. The employee involvement in environmental strategy is described by the following graph.



Location:

Estonian and Lithuanian respondent companies involve their employees in the green strategy proportionally similarly. However, Lithuanian repondents have proportionally less companies, where there is no green strategy. Latvian respondent companies mostly either have a strategy and employees are involved or they do not have a strategy. The employee involvement in environmental strategy of the Baltic countries respondent companies is described by the following graph.



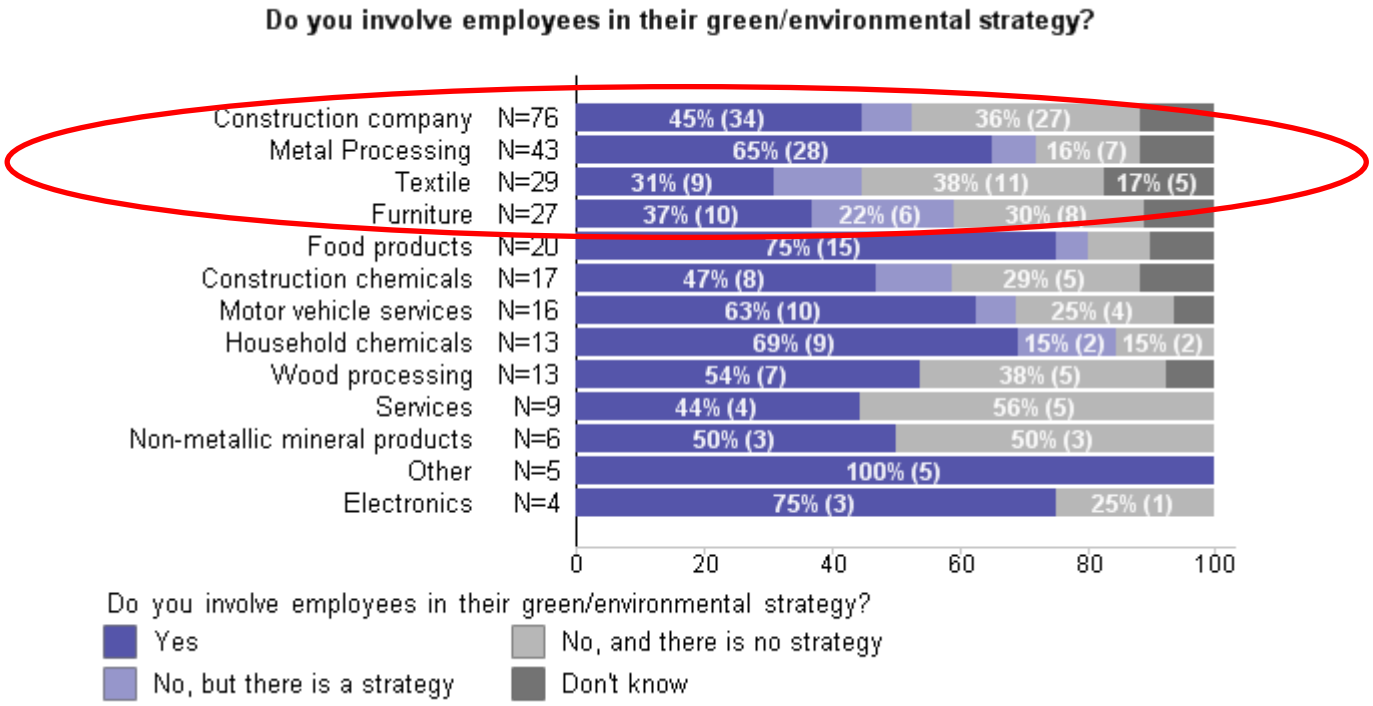
Size:

Different sized respondent companies involve proportionally similarly their employees in green strategies. Among small sized companies the percentage of „No, and there is no strategy“ is the highest, lowest is among

medium sized companies. The employee involvement in environmental strategy of different sized companies is described by the following graph.

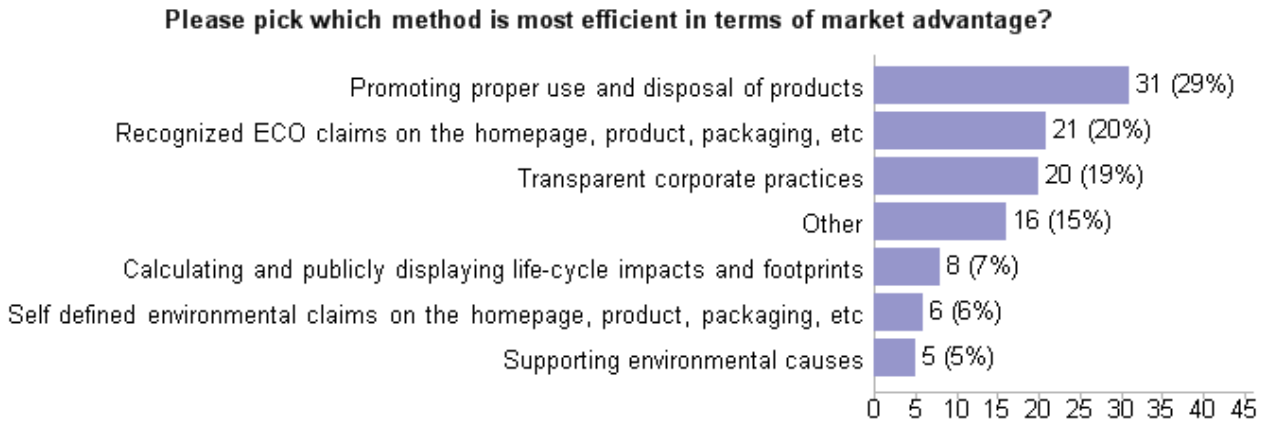
Sectors:

The employee involvement in environmental strategy of different sectors is described by the following graph. Thing to notice is that some sectors have small number of respondents, thus those sectors are not well desbribed.



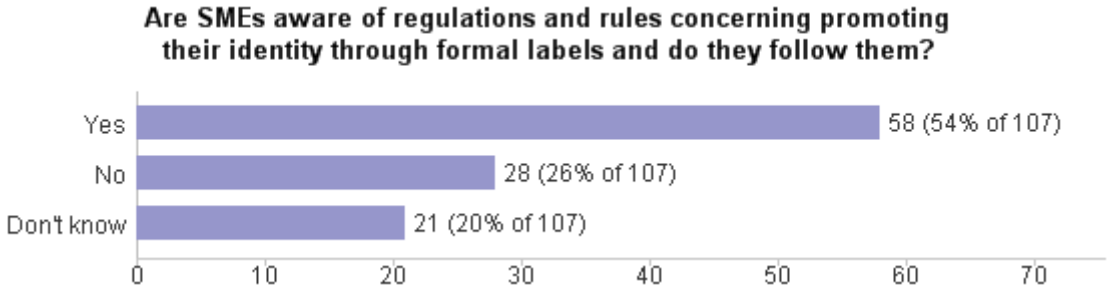
14. What kind of elements of environmental corporate identity (labels) do companies use to promote their environmental values to the external stakeholders?

The most frequent way of the respondent companies to promote their environmental values to the external stakeholders is promoting proper use and disposal of products. The next are recognized ECO claims on homepage, product, packaging etc and transparent corporate practices. The frequency of promoting elements is described by the following graph. Graph only describes those, who answered to the corresponding question.

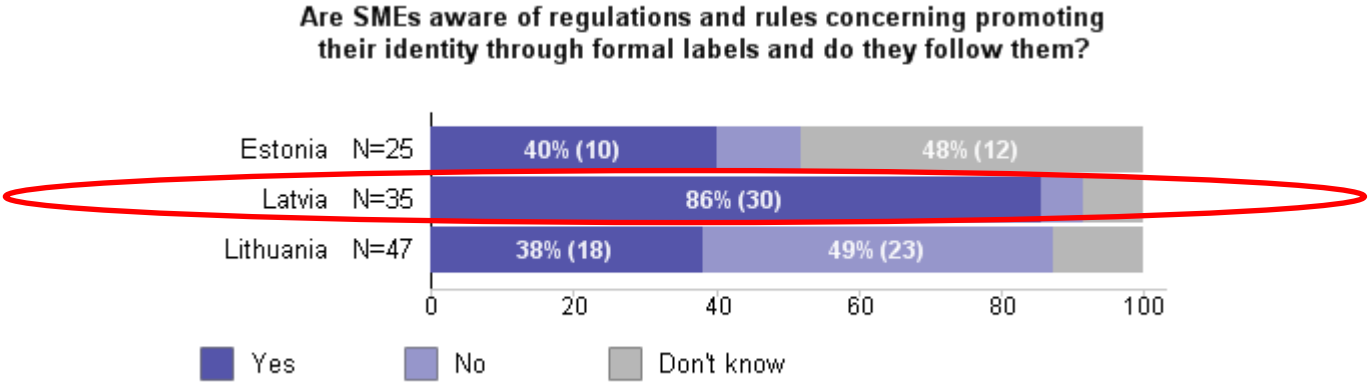


15. Are SMEs aware of regulations and rules concerning promoting their identity through formal labels and do they follow them?

More than half of the respondent companies, that answered to this question, are aware of the regulations and rules concering promoting their identity through formal labels and follow them. Around quarter does not and fifth of those who answered do not know. This is illustrated by the following graph.

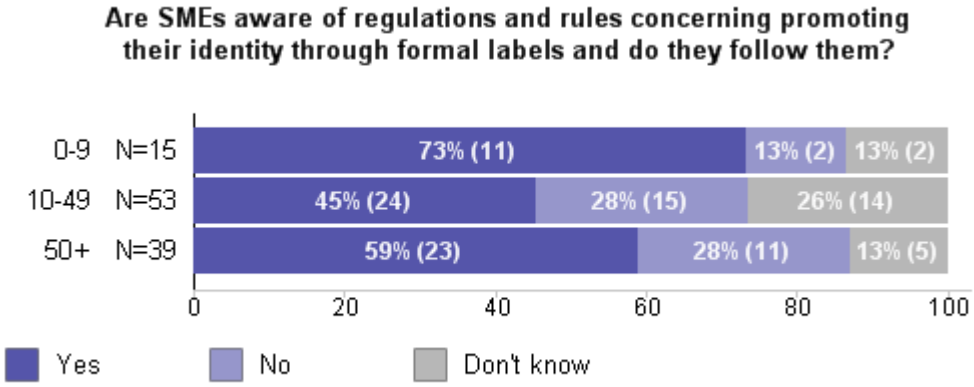


Location:
The following graph describes whether the Baltic countries respondents, who answered the corresponding question, are aware of regulations and rules concerning promoting their identity throught formal labels and do they follow them. In Latvia companies seem to have the highest awareness regarding rules of promotion of formal labels. Thing to notice is the number of respondents from each country, because it makes up less than half from each country.



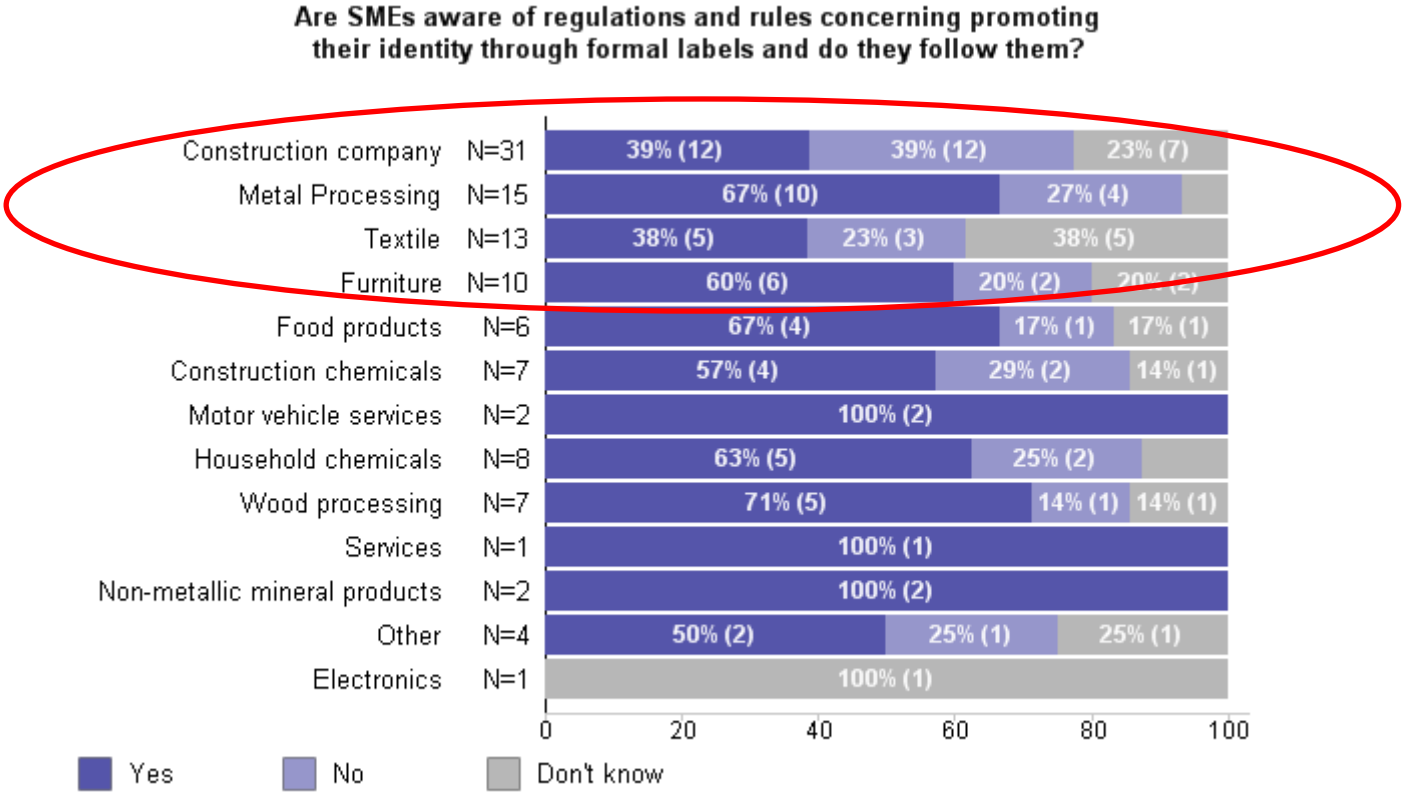
The frequency of Latvian respondents who are **aware of the regulations** is statistically different from the frequencies of Estonian and Lithuanian respondents.

Size:
The following graph describes whether different sized companies, who answered the corresponding question, are aware of regulations and rules concerning promoting their identity throught formal labels and do they follow them. Thing to notice is the number of respondents from each sized company, because from each size less than half have answered to the corresponding question.



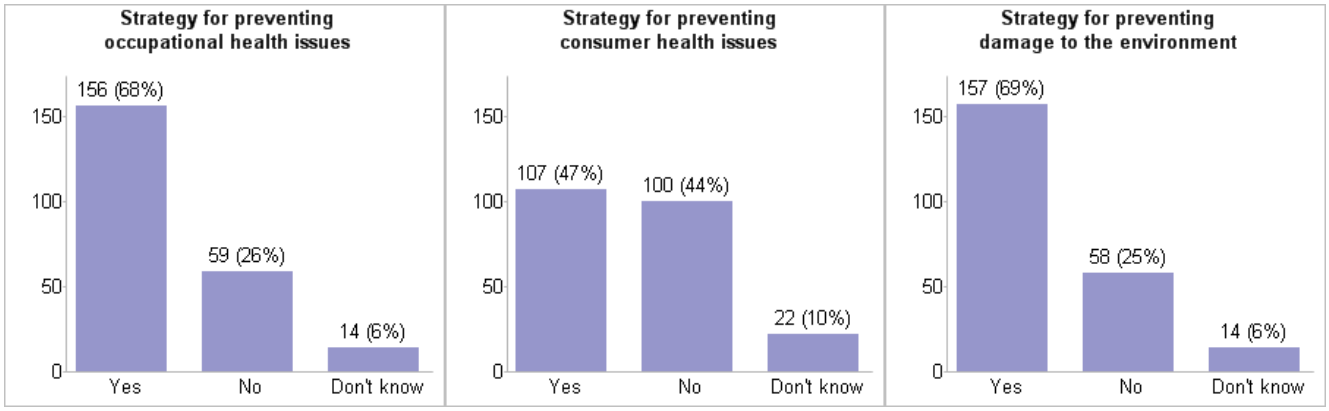
Sector:

The following graph describes whether companies from different sectors, who answered the corresponding question, are aware of regulations and rules concerning promoting their identity throught formal labels and do they follow them. Thing to notice, there are less than half of the respondents from each sector.



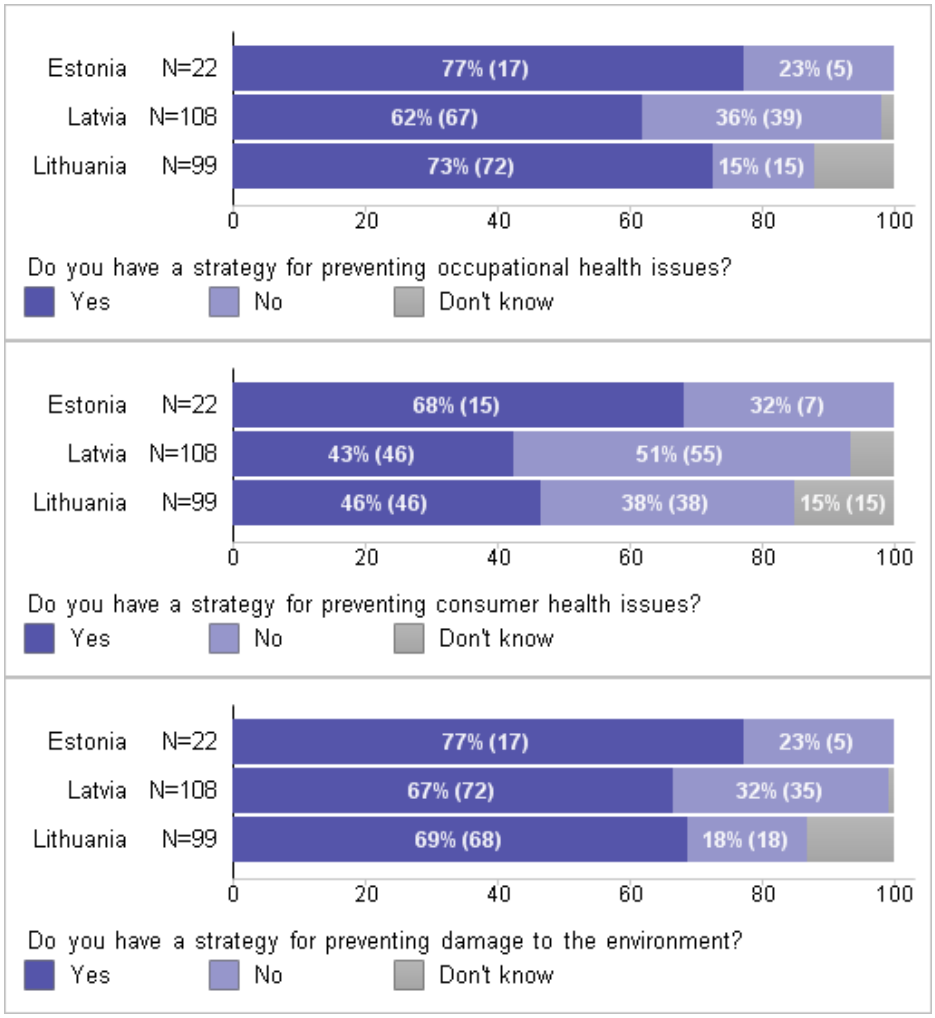
16. Do SMEs have strategies for preventing damage from hazardous substances to the environment, employees (occupational health) and customers (consumer health)?

More than two thirds of the respondent companies have a strategy for preventing damage from hazardous substances to their **employees**. Around quarter do not have a strategy and few do not know. Bit less than half of the respondents have a strategy for preventing damage from hazardous substances to the **consumer**. About the same amount of respondent companies do not have a strategy. Some do not know, if they have a strategy. More than two thirds of the respondent companies have a strategy for preventing damage from hazardous substances to the **environment**. Quarter do not have a strategy and few do not know. This is described by the following graphs.



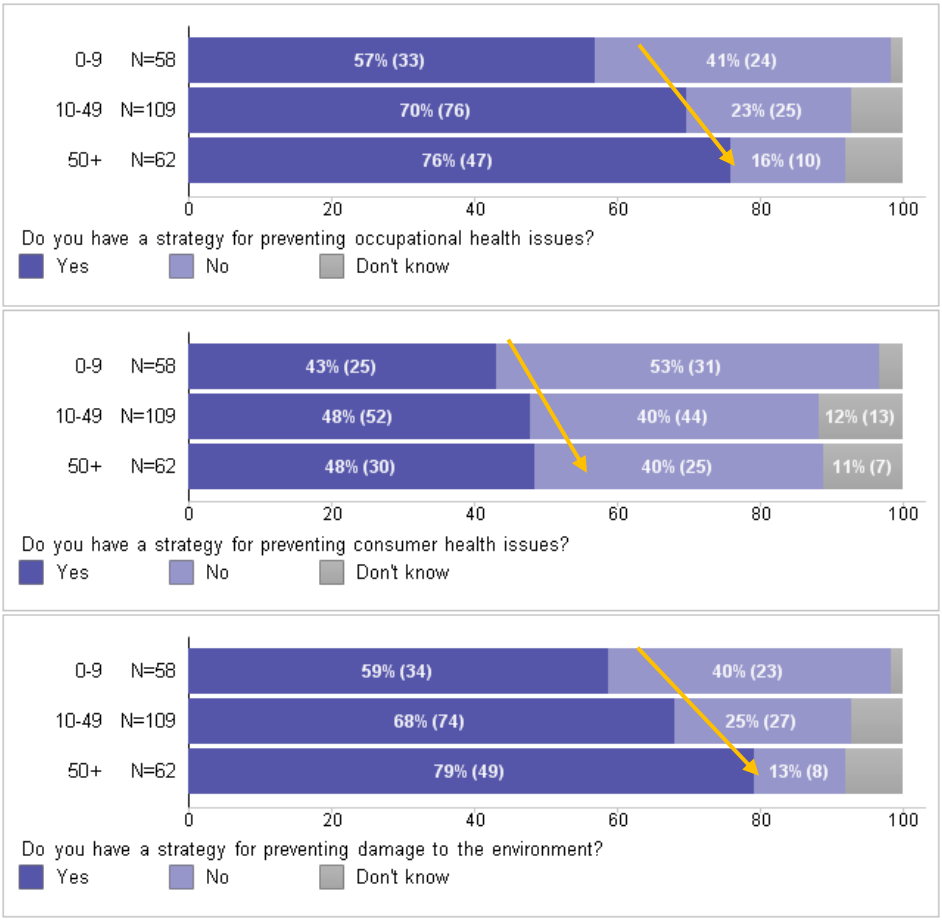
Location:

The following graphs describe whether the Baltic countries respondent companies have a strategy for preventing occupational health issues, for preventing consumer health issues and for preventing damage to the environment. Thing to notice is Estonias low number of respondents.



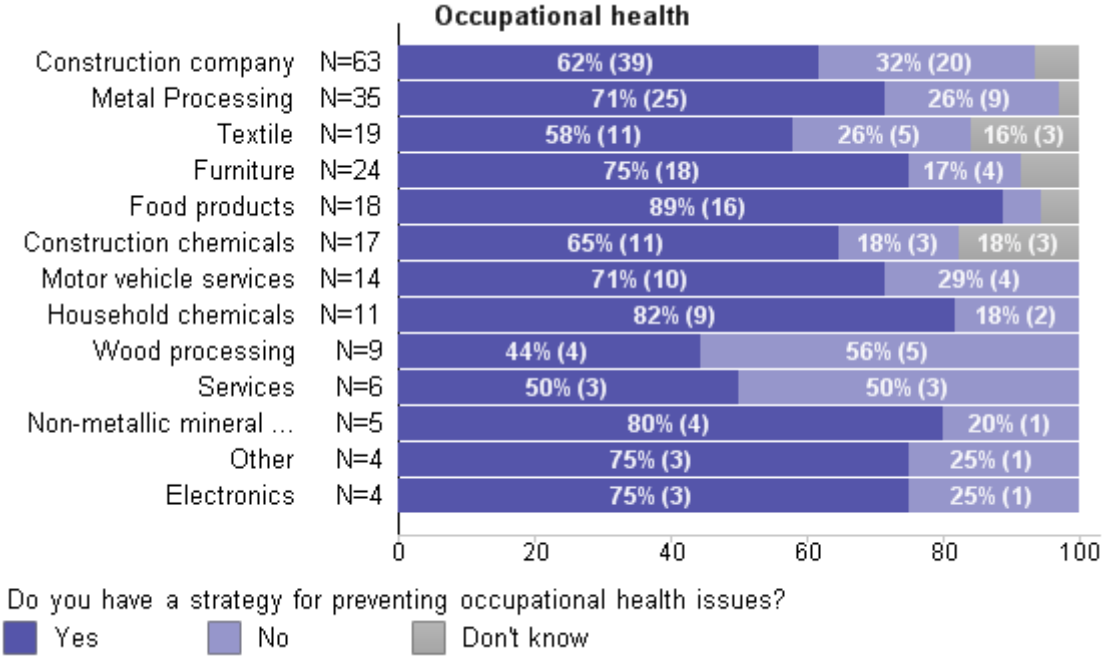
Size:

The following graphs describes whether different sized companies have a strategy for preventing occupational health issues, for preventing consumer health issues and for preventing damage to the environment.

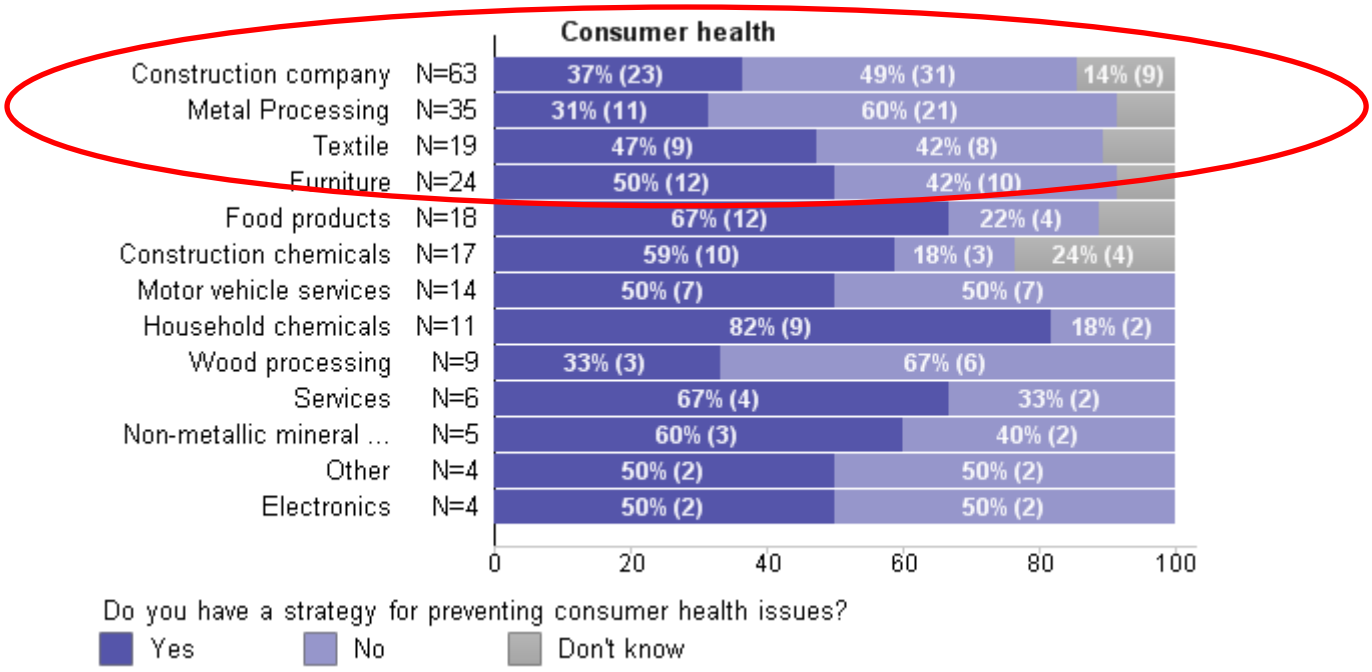


Sectors:
When describing sectors, the questions have been taken separately for viewability reasons.

Occupational health:
The following graph describe whether companies in different sectors have a strategy for preventing occupational health issues.

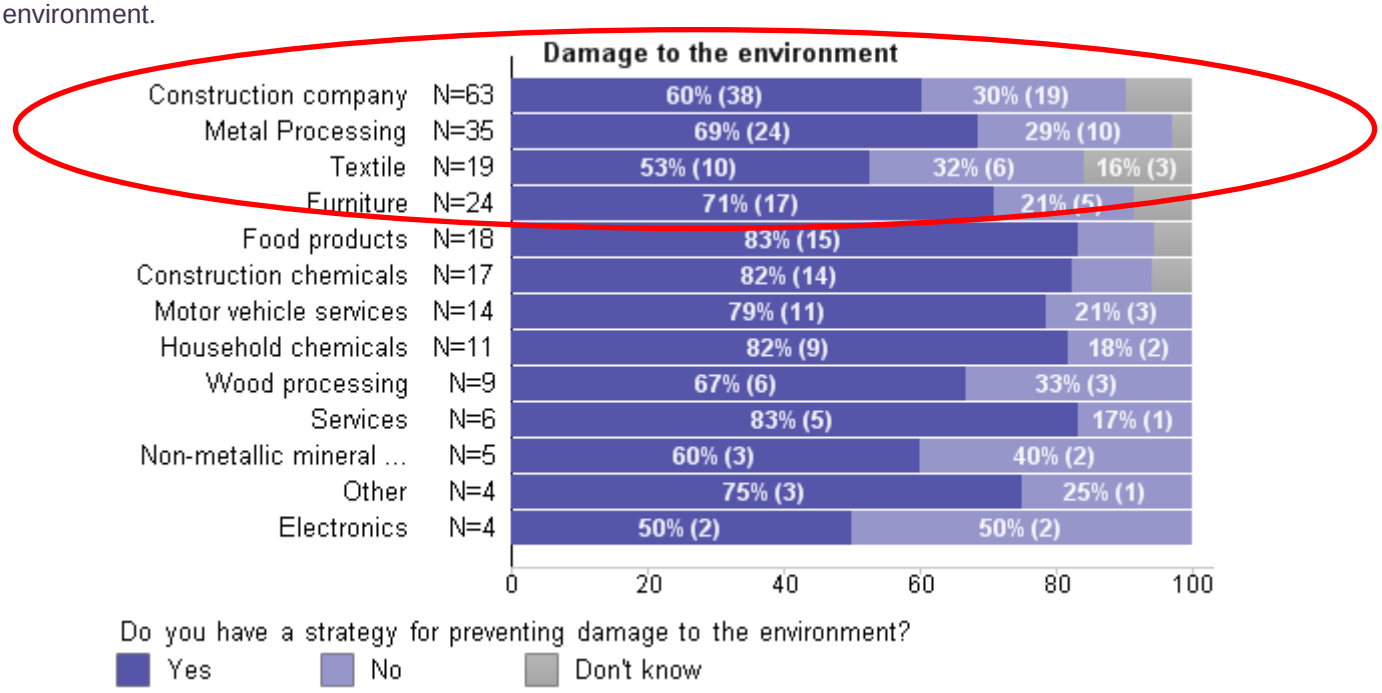


Consumer health:
The following graph describe whether companies in different sectors have a strategy for preventing consumer health issues.



Damage to environnment:

The following graph describe whether companies in different sectors have a for preventing damage to the environment.



17. What kind of methods do SMEs use to replace hazardous substances?

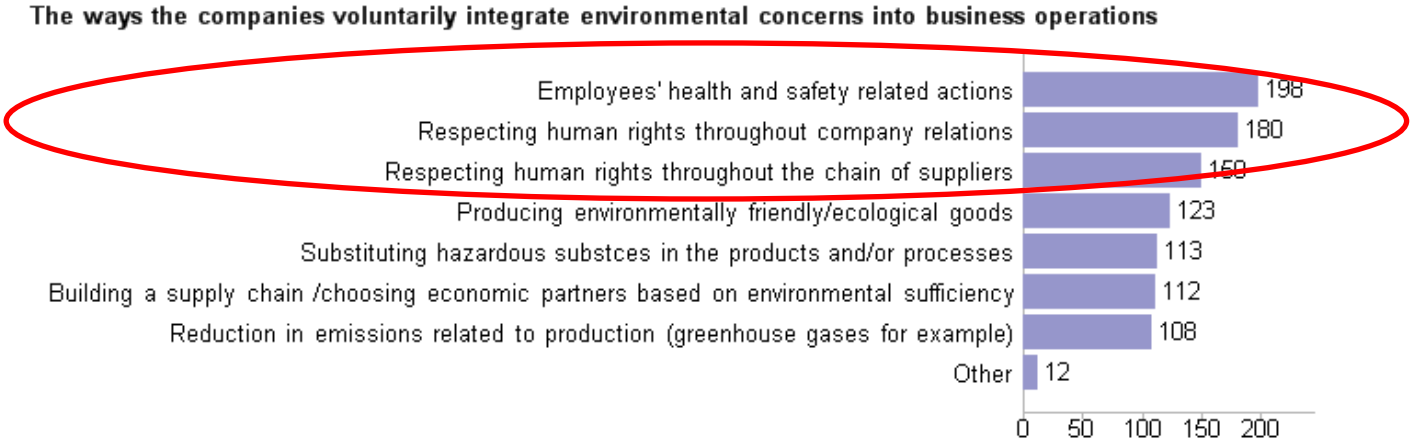
The following table describes the frequencies and categories of proposed methods for replacing hazardous substances.

Proposed methods for replacing hazardous substances (categories)	Frequency
Use safer alternatives	39
Use ecofriendly substances/alternatives	24
Company can't change/substitute substance (usage)	14
Do not use/use small amounts hazardous materials/substances	14
Follow/apply regulations/restrictions	12
Recycle/waste disposal	11
Advanced/advancement of technologies	10

Waterbased paints/products	9
Current/future market options/depent on suppliers	8
Use/implement filters/filtersystems	7
Environmental awareness	6
(Needing) guidelines and advice	5
Invest in (better) technologies	4
Produce less hazardous products	2
Setting environmental goals and following them	1
	166

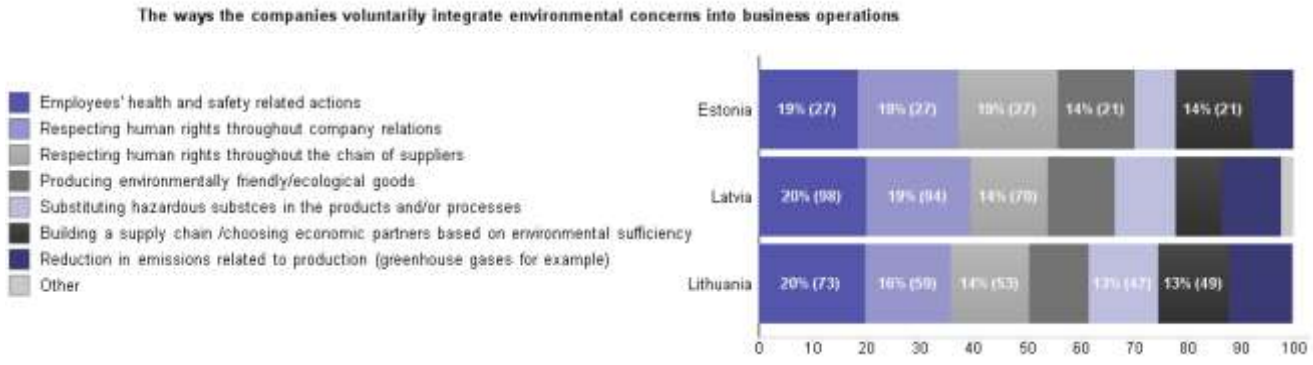
18. Have SMEs taken any voluntary actions (beyond legislation) regarding substitution of hazardous substances?

The most frequent voluntary actions companies take to integrate environmental concerns into business operations are to do with employees health and safety as well as human rights. This is described by the following graph.



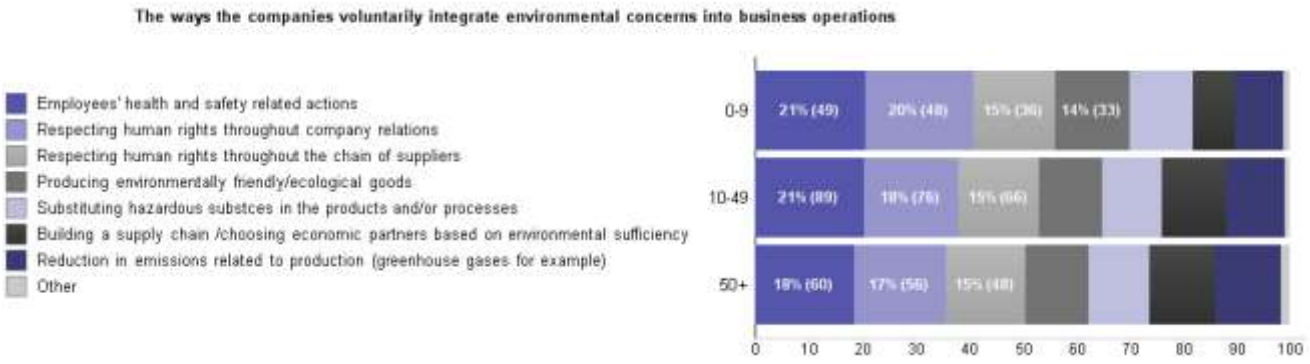
Location:

Respondent companies from Estonia, Latvia and Lithuania have selected proportionally similarly the ways the companies voluntarily integrate environmental concerns into business operations. Thing to notice is that the number of respondents from Estonia, who answered the corresponding question, is less than half of the Estonian respondent companies. The ways respondent companies from different countries voluntarily integrate environmental concerns into business operations are described by the following graph.



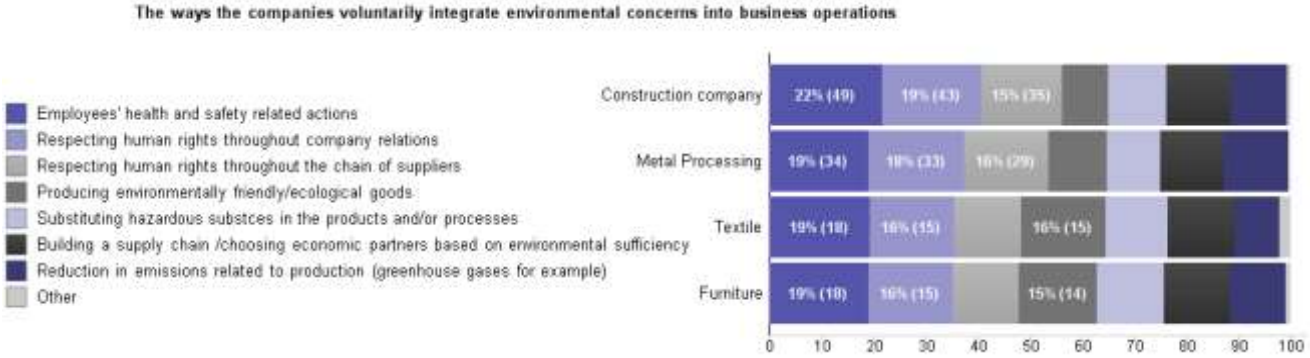
Size:

Different sized companies have answered proportionally similarly to the corresponding question. The ways different sized respondent companies voluntarily integrate environmental concerns into business operations are described by the following graph.



Sector:

Respondent companies from different sectors have answered proportionally similarly to the corresponding question. The ways respondent companies from the main sectors voluntarily integrate environmental concerns into business operations are described by the following graph.



19. What do SMEs see as the most efficient measures to promote environmental corporate responsibility?

The following table describes the frequencies and categories of measures to promote environmental corporate responsibility.

Measures to promote environmental corporate responsibility (categories)	Frequency
Educating/training people/employees and spreading awareness	45
Recycling/waste management; Environmentally friendly working environment	32
Control by state/management/organisation; Regulations/rules etc; Annual assessment	26
Eco-friendly/alternative materials; Substituting hazardous materials	18
Financial support/incentives/Reduced taxes	16
Governmental/state actions	12
Fines/ financial sanctions/Tax increase	11
Special equipment; innovation in technology/methods	7
Certificates/Law abiding	5
Optimal/maximum usage of material	5
Consumer requirements	3
Bigger competition in the utilisation field	1
Internal environmental policies	1
	182

Conclusions

- In Latvia and Lithuania most respondent companies do integrate environmental concerns into business operations. Only half of respondents from Estonia integrate environmental concerns into business operations.
- SMEs acknowledge SMEs as a group and the company itself to have strong responsibility in the region. Interesting is that Estonian companies have evaluated the responsibility the highest. However they integrate environmental concerns the least, compared to Latvian and Lithuanian respondents.
- Most important drivers to substituting hazardous substances in the production processes are environmental concerns and official legislations, regulations.
- Most important obstacles to substituting hazardous substances in the production processes are the lack of resources and uncertainty regarding the market potential of the alternatives. Latvian and Lithuanian companies have evaluated the obstacles similarly. However, Estonian respondents have evaluated the importance of the obstacles lower. Also, from Estonia there were third of respondents compared to Latvia and Lithuania.
- The most frequent reasons why companies voluntarily integrate environmental actions into business operations are to care for employees health and human rights as well as to conserve environment in the region/world.
- The government is the highest influencer demanding environmental efficiency. Exceptionally in Estonia, the highest demand comes from the employees.
- Environmental sustainability is seen to be (more) profitable in 5 years than at the moment.
- SMEs need training and help of an external advisor or expert the most in order to incorporate environmental actions into the production processes.
- The proportion of companies who have internal policy as well as those who have strategy for preventing damage to occupational health and to the environment increase with the company size.
- SMEs most often proposed safer alternatives or eco-friendly solutions to replace hazardous substances.
- SMEs see spreading knowledge/environmental awareness/environmental education and proper waste management/recycling to be the best way to promote environmental corporate responsibility.

Annex. Questionnaire

Question no	Question		Answer options	Comment
	BACKGROUND INFORMATION			
PAGE 1				
1	*'INTRODUCTORY TEXT OF THE QUESTIONNAIRE'*			
2	Legal name of the company:		*Open text box*	
3	Main products currently manufactured by the company:		*Open text box*	
4	Main export markets (countries) if there are any:		*Open text box*	
5	Average number of employees in the company:		*Open text box*	
6	Turnover in 2016:		*Open text box*	
7	Turnover in 2017:		*Open text box*	
PAGE 2				
8	Please select the production area of <Company name>:	1	*Household chemicals (household cleaning agents)*	
		2	*Construction chemicals (paints and varnishes)*	
		3	*Textile*	
		4	*Metal Processing*	
		5	*Food products (canned food)*	
		6	*Furniture*	
		7	*Construction company*	
		8	*Other (please specify):*	*Open comment*
9	Your role in the company:	1	*Top management*	*Multiple select*
		2	*Operations manager*	
		3	*Quality control, safety, environmental manager*	
		4	*Accountant, bookkeeper, controller*	
		5	*Office manager*	
		6	*Receptionist*	
		7	*Foreperson, supervisor, lead person*	
		8	*Marketing manager*	
		9	*Purchasing manager*	

		10	*Shipping and receiving person or manager*	
		11	*Professional staff*	
		12	*Other:*	
10	Does the production process of <Company name> create or use any hazardous substances?	1	*Yes, use*	*Multiple select*
		2	*Yes, create*	
		3	*No*	
		4	*Don't know*	

Question no	Question	Answer options		Comment
HAZARDOUS SUBSTANCES				
***PAGE 3**- if 'yes, use' or 'yes, create' to Q10*				
11	In the last ten years, did <Company name> implement any substitution of hazardous substances?	1	*Yes*	
		2	*No*	
		3	*Don't know*	
12	Is there a concrete plan in <Company name> with timing and resource allocation to take up substitution of hazardous substances in the production process?	1	*Yes*	
		2	*No*	
		3	*Don't know*	
13	Please evaluate, how important are the following factors as drivers to subsitute hazardous substances in the production processes.			
	Internal management policies	1	*1 - not important; 10 - very important; ? - don't know*	
	Economic profit	2	*1 - not important; 10 - very important; ? - don't know*	
	Workers' concerns	3	*1 - not important; 10 - very important; ? - don't know*	
	Consumers' concerns	4	*1 - not important; 10 - very important; ? - don't know*	
	Environmental concerns	5	*1 - not important; 10 - very important; ? - don't know*	
	Supply chains' requests	6	*1 - not important; 10 - very important; ? - don't know*	
	Official legislation and regulations	7	*1 - not important; 10 - very important; ? - don't know*	
	Other (please specify):	8	*1 - not important; 10 - very important; ? - don't know*	

14	Please evaluate, how important are the following factors as obstacles to the substitution of hazardous substances in the production processes?		
	Complexity of the regulations regarding substitutes	*1*	*1 - not important; 10 - very important; ? - don't know*
	Lack of resources	*2*	*1 - not important; 10 - very important; ? - don't know*
	Lack of Technical guidance	*3*	*1 - not important; 10 - very important; ? - don't know*
	Lack of expertise	*4*	*1 - not important; 10 - very important; ? - don't know*
	Uncertainty regarding the market potential of the alternatives	*5*	*1 - not important; 10 - very important; ? - don't know*
	Lack of external demand	*6*	*1 - not important; 10 - very important; ? - don't know*
	Other (please specify):	*7*	*1 - not important; 10 - very important; ? - don't know*
15	If there have been significant fines or non-monetary sanctions to <Company name > for non-compliance with environmental laws and/or regulations related to hazardous substances, please state the following:		
	Total monetary value of significant fines:	*1*	*Open comment*
	Total number of non-monetary sanctions:	*1*	*Open comment*
	Cases brought through dispute resolution mechanisms:	*3*	*Open comment*

Question no	Question		Answer options	Comment
VOLUNTARY CORPORATE ENVIRONMENTAL ACTIONS				
PAGE 4				
16	Does <Company name> voluntarily (without legal expectations) integrate environmental concerns into business operations?	*1*	*Yes*	
		2	*No*	
		3	*Don't know*	
PAGE 5 *- if 'yes' to Q16*				
17	Please pick the ways how <Company name> voluntarily (without legal expectations) integrates environmental concerns into business operations?	*1*	*Employees' health and safety related actions*	*Multiple select*
		2	*Respecting human rights throughout company relations*	
		3	*Respecting human rights throughout the chain of suppliers*	
		4	*Producing environmentally friendly/ecological goods*	
		5	*Building a supply chain /choosing economic partners based on environmental sufficiency*	

		6	Reduction in emissions related to production (greenhouse gases for example)	
		7	Substituting hazardous substces in the products and/or processes	
		8	Other (please specify):	Open comment
18	For what reason does <Company name> integrate voluntary environmental actions into the business operations?	1	To conserve environment in the region/world	Multiple select
		2	To care for employees' health	
		3	To respect human rights	
		4	To reduce operational costs	
		5	To seize growth opportunities	
		6	To manage risks	
		7	To reduce production of hazardous substances	
		8	To reduce emission of hazardous substances	
		9	To reduce the impact of hazardous substances on consumer health	
		10	External demand from owners	
		11	External demand from clients (b2b)	
		12	External consumer demand	
		13	To substitute hazardous substances in the products and/or processes	
		14	To create the image of an environmentally friendly company	
		15	To generate economic profit from a green/environmental approach	
		16	Other (please specify):	Open comment
19	Do you think enviromental sustainability is profitable for <Company name> at the moment?	1	Yes	
		2	No	
		3	Don't know	
20	Do you think enviromental sustainability will be (more) profitable for <Company name> in 5 years?	1	Yes	
		2	No	
		3	Don't know	
PAGE 6 if 'no' to Q16				
21	Is there a concrete plan in <Company name> with timing and resource allocation to take up voluntary	1	Yes	

	environmental actions in the business operations?	2	*No*	
		3	*Don't know*	
22	If yes, please specify in how many years:	1	*In <1 year*	
		2	*In 1 to 3 years*	
		3	*In more than 3 years*	
		4	*Don't know*	
PAGE 7				
23 - if 'yes' to Q21	For what reason(s) does <Company name> want/plan to take voluntary environmental actions?	1	*To conserve environment in the region/world*	*Multiple select*
		2	*To care for employees' health*	
		3	*To respect human rights*	
		4	*To reduce operational costs*	
		5	*To seize growth opportunities*	
		6	*To manage risks*	
		7	*To reduce production of hazardous substances*	
		8	*To reduce emission of hazardous substances*	
		9	*To reduce the impact of hazardous substances on consumer health*	
		10	*External demand from owners*	
		11	*External demand from clients (b2b)*	
		12	*External consumer demand*	
		13	*To substitute hazardous substances in the products and/or processes*	
		14	*To create the image of an environmentally friendly company*	
		15	*To generate economic profit from a green/environmental approach*	
		16	*Other (please specify):*	*Open comment*
24 - if 'no' to Q21	For what reason(s) is <Company name> NOT not planning to take any environmental actions beyond legal requirements?	1	*No available resources*	
		2	*Company has no significant impact on the environment*	
		3	*No demand from owners*	
		4	*No external demand from customers*	
		5	*Environmental actions are not profitable*	
		6	*Legal norms /regulations are strict enough*	

		7	*Environmental actions do not create competitive advantage*	
		8	*Lack of expertise*	
		9	*Other (please specify):*	*Open comment*
25- if 'no' to Q21	Please state what would motivate <Company name> to take up environmental actions beyond legal requirements?		*Open comment*	
PAGE 8				
26	Please evaluate to what extent you agree with the following statements:			
	SMEs as a group have environmental responsibility in your region	1	*1 - completely disagree; 10 - completely agree; ? - don't know*	
	<Company name> has environmental responsibility in your region	2	*1 - completely disagree; 10 - completely agree; ? - don't know*	
27	Please evaluate to what extent you feel that the following stakeholders demand environmental efficiency from organisations such as <company name>?			
	Empoyees	1	*1 - no demand; 10 - strong demand; ? - don't know*	
	Partners (b2b)	2	*1 - no demand; 10 - strong demand; ? - don't know*	
	External customers	3	*1 - no demand; 10 - strong demand; ? - don't know*	
	Government	4	*1 - no demand; 10 - strong demand; ? - don't know*	
	Shareholders/Investors	5	*1 - no demand; 10 - strong demand; ? - don't know*	
28	Is environmental sufficiency viewed in <Company name> rather as a cost or as an investment?	1	Rather as cost	
		2	Rather as investment	
		3	Don't know	

Question no	Question	Answer options	Comment
	ENVIRONMENTAL IDENTITY		
PAGE 9			
29	Does <company name> have an internal environmetal policy? *Policy meaning a document or memo to be followed by the employees.	*1 Yes* *2 No* *3 Don't know*	
30 - If 'Yes' to Q10	Please pick if <Company name> has the following srategies or policies: *Hazardous substance related strategy for preventing occupational health issues* *Hazardous substance related strategy for preventing consumer health issues* *Hazardous substance related strategy for preventing damage to the environment*	 *1 Yes / No / Don't know* *2 Yes / No / Don't know* *3 Yes / No / Don't know*	
31	Does <company name> involve employees in their green/environmental strategy?	*1 Yes* *2 No, but there is a strategy* *3 No, and there is no strategy* *4 Don't know*	
32	Are environmental values of <company> in any way communicated to the external stakeholders?	*1 Yes* *2 No* *3 Don't know*	
PAGE 10			
33 - If 'yes' to Q29	Please describe the internal environmental policy shortly.	*Open comment*	
34 - If 'yes' to Q29	Where does the environmental knowledge in <Company name> come from?	*Open comment*	
35 - If 'yes' to Q29	What expertise is <Company name> lacking in terms of environmental profile?	*Open comment*	
36 - If 'yes' to Q30	Please describe the hazardous substance related strategies in <Company name> shortly.	*Open comment*	

37 - If 'yes' to Q31	Please describe how are employees involved in the green/environmental strategy of <Company name>.		*Open comment*	
***PAGE 11** - if 'Yes' to Q32*				
38	Please pick the methods that are used in <Company name> to promote the environmental identity and communicate it to the external stakeholders.	*1*	*Reckognized ECO labels on the homepage, product, packaging, etc*	*Multiple select*
		2	*Self-declared labels on the homepage, product, packaging, etc*	
		3	*Transparent corporate practices (public access to environmental strategies and active reporting)*	
		4	*Supporting environmental causes*	
		5	*Promoting proper use and disposal of products*	
		6	*Calculating and publicly displaying life-cycle impacts and footprints*	
		7	*Other (please specify):*	*Open comment*
39	Does <Company name> follow formal regulations on using environmental labels?	*1*	*Yes*	
		2	*No (please specify the reason):*	
		3	*Don't know*	
40	Please pick which method is most efficient in terms of market advantage?	*1*	*Reckognized ECO labels on the homepage, product, packaging, etc*	*Single select*
		2	*Self-declared labels on the homepage, product, packaging, etc*	
		3	*Transparent corporate practices (public access to environmental strategies and active reporting)*	
		4	*Supporting environmental causes*	
		5	*Promoting proper use and disposal of products*	

		6 *Calculating and publicly displaying life-cycle impacts and footprints*	
		7 *Other (please specify):*	*Open comment*
41	Please describe how you measure the market advantage of promoting the environmental profile and identity of <Company name>.	*Open comment*	

Question no	Question	Answer options	Comment
	ENVIRONMENTAL IMPACT		
PAGE 12			
42	Do you consider <Company name> to be an environmentally friendly company?	1 *Yes* 2 *No* 3 *Don't know*	
	Please specify:	4 *Open comment*	
43	Does <Company name> measure their current environmental impact or footprint?	1 *Yes (please describe, how):* 2 *No* 3 *Don't know*	*Open comment*
44	How strong is the measured or estimated environmental impact of <Company name>?	*1 - no impact; 10 - very strong impact; ? - don't know*	
45	Please name effective methods for replacing hazardous substances or reducing environmental impact in your sector or field.	*Open comment*	
46	Please name effective methods for promoting environmental responsibility and sustainable development in your sector or field.	*Open comment*	
47	What kind of external help or assistance does <Company name> need or would like to get in order to incorporate environmental concerns into the business operations?	1 *Training* 2 *Help of an external advisor or expert*	

		3	*Help with incorporating existing environment standards into the processes (ISO14001 for example)*	
		4	*Help with adding environmental label on the products/packagin etc (Swan for example)*	
		5	*Other (please specify):*	*Open comment*
48	Would you like to receive the report created based on this survey on your e-mail?	*1*	*Yes (please write the e-mail):*	
		2	*No*	
49	Way of collecting answers for this respondent:	*1*	Web survey	
		2	Telephone interview	
		3	Combined	